PROCESADOR DE MEZCLA-V

VM-7200
VM-7100

MANUAL DEL USUARIO

Gracias y enhorabuena por haber adquirido el **VM-7200 (VM-7100) Procesador de Mezcla-V de Roland**.

Antes de utilizar esta unidad, lea detenidamente los apartados titulados: "INSTRUCCIONES DE SEGURIDAD IMPORTANTES" (p. 2), "UTILIZAR LA UNIDAD CON SEGURIDAD" (pág. 3) y "NOTAS IMPORTANTES" (pág. 6). Estos apartados proporcionan información importante referente al uso adecuado de la unidad. Además, para estar seguro de que ha comprendido buena parte de las prestaciones de su nueva unidad, debe leer este manual en su totalidad. Conserve el manual y téngalo siempre a mano para poder consultarlo.

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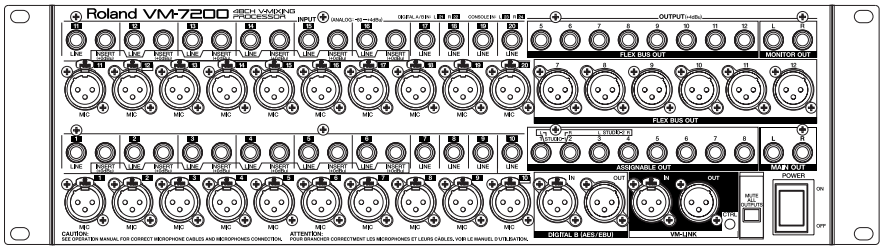

Cómo Leer este Manual

Este Manual del usuario fue preparado para que Vd. pueda utilizarlo con los siguientes dos modelos. Consulte este manual después de identificar el modelo que ha adquirido.

Procesador de Mezcla-V de 48 Canales:VM-7200
Procesador de Mezcla-V de 38 Canales:VM-7100

El VM-7200 (VM-7100) fue diseñado para utilizarse junto con la Consola de Mezcla-V VM-C7200 de Roland. Las explicaciones y descripciones en este Manual del Usuario son principalmente sobre la configuración inicial, inclusive las conexiones con la VM-7200 y otros aparatos, y el encendido de dichos aparatos. Para obtener información acerca de los procedimientos de funcionamiento, vea el Manual del Usuario de la VM-C7200 Manual del Usuario (VM-C7200).

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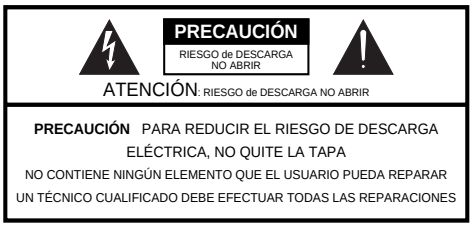
PRECAUCIÓN
RIESGO de DESCARGA
NO ABRIR
ATENCIÓN: RIESGO de DESCARGA NO ABRIR
PRECAUCIÓN PARA REDUCIR EL RIESGO DE DESCARGA
ELÉCTRICA, NO QUITE LA TAPA
NO CONTIENE NINGÚN ELEMENTO QUE EL USUARIO PUEDA REPARAR
UN TÉCNICO CUALIFICADO DEBE EFECTUAR TODAS LAS REPARACIONES

El símbolo de relámpago con punta de flecha contenido en el triángulo advierte al usuario de la presencia del "voltaje peligroso" dentro de la unidad que es de suficiente magnitud como para constituir un riesgo de descarga eléctrica.

El punto de exclamación contenido en el triángulo advierte al usuario de la presencia de instrucciones importantes acerca del funcionamiento y mantenimiento de la unidad

Instrucciones pertenecientes al riesgo de incendio, descarga eléctrica y daños físicos.

INSTRUCCIONES DE SEGURIDAD IMPORTANTES
GUARDE ESTAS INSTRUCCIONES

AVISO: Cuando utiliza productos eléctricos, siempre debe observar las precauciones básicas, incluyendo las siguientes

1. Antes de utilizar la unidad, lea todas las instrucciones.
2. No lo utilice cerca de agua - por ejemplo, cerca de un baño, un fregadero o en sótano húmedo, cerca de una piscina, etc.
3. Debe utilizar este producto con el soporte recomendado por el fabricante.
4. Este producto, utilizado junto con un amplificador, altavoces o auriculares, es capaz de generar niveles de volumen que podrían causar la pérdida permanente del sentido de audición. No debe utilizarlo durante períodos largos a altos niveles de volumen o a un nivel de volumen que resulte incomodo. Si Ud. nota la disminución del sentido de audición o sufre zumbidos en los oídos, consulte con un especialista médico.
5. Debe colocar el producto de forma que ni la colocación ni la posición impide la ventilación correcta de la unidad.
6. No debe colocar la unidad cerca de fuentes de calor como, por ejemplo, radiadores, calefactores u otros productos que generan calor.
7. Debe conectar el producto sólo al tipo de red eléctrica especificada en las instrucciones o impreso en la unidad.
8. Si no utiliza la unidad durante un período largo, debe desconectar el cable de alimentación del enchufe.
9. Debe evitar que caigan objetos y líquidos dentro de la unidad.
10. Un técnico cualificado de revisar la unidad si:

    A. Si el cable de alimentación ha sufrido daños,.
    B. Si objeto o líquidos han entrado en la unidad
    C. La unidad ha sido expuesto a la lluvia.
    C. Si la unidad no funciona de forma correcta .
    D. Si la unidad ha caído o la parte exterior de la unidad ha sufrido daños.
    E. Si la unidad ha caído o la parte exterior ha sufrido daños

11. No debe intentar reparar la unidad excepto si está siguiendo las instrucciones de mantenimiento del usuario. Un técnico cualificado debe efectuar todas las demás reparaciones

- Piezas de recambio - Cuando se deban utilizar piezas de recambio, asegúrese de que el servicio técnico ha utilizado piezas de recambio especificadas por el fabricante o con idénticas características que las originales. Las sustituciones que se lleven a cabo sin autorización alguna pueden provocar un fuego, un cortocircuito o cualquier otro incidente..
- Comprobación de seguridad - Cuando le efectúen cualquier reparación, pida que el servicio técnico realice comprobaciones de seguridad para determinar que el producto está en las condiciones debidas de funcionamiento.

For the USA

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded.
Do not modify the plug provided with the product — if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

For the U.K.

WARNING: THIS APPARATUS MUST BE EARTHED
IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

The product which is equipped with a THREE WIRE GROUNDING TYPE LINE PLUG must be grounded.

UTILIZAR LA UNIDAD CON SEGURIDAD

INSTRUCCIONES PARA LA PREVENCIÓN DE INCENDIOS, DESCARGA ELÉCTRICA Y DAÑOS FÍSICOS

ACERCA DE AVISO Y PRECAUCIÓN

⚠ **AVISO**	Se utilizará cuando se den instrucciones para alertar al usuario sobre el riesgo de muerte o de daños físicos graves por una utilización inadecuada de la unidad.
⚠ **PRECAUCIÓN**	Se utilizará cuando se den instrucciones para alertar al usuario sobre el riesgo de sufrir daños físicos o daños materiales por una utilización inadecuada de la unidad. * Cuando se hace referencia a daños materiales se entiende cualquier daño o efecto adverso que pueda sufrir la casa y todo el mobiliario, así como el que puedan sufrir los animales de compañía. .

ACERCA DE LOS SÍMBOLOS

⚠	Este símbolo alerta al usuario sobre instrucciones importantes o advertencias. El significado específico del símbolo queda determinado por el dibujo que contenga dicho triángulo. Si el triángulo no contiene ningún dibujo, se estará utilizando para precauciones de tipo general, para advertencias, o para alertas de peligro.
	Este símbolo alerta al usuario sobre lo que no debe realizar (está prohibido). Lo que no se puede realizar está debidamente indicado según el dibujo que contenga el círculo. Si el círculo no contiene ningún dibujo, significa que la unidad no debe estar nunca desmontada.
	El símbolo alerta al usuario sobre las funciones que debe realizar. La función específica que debe realizar se indica mediante el dibujo que contiene el círculo. Si el símbolo o contiene ningún dibujo, significa que el enchufe debe desconectarse de la toma de corriente.

OBSERVE SIEMPRE LO SIGUIENTE

⚠ AVISO

- Antes de utilizar la unidad, lea todas las instrucciones y el manual del usuario.

- No abra ni realice modificación interna alguna en la unidad. (La única excepción sería los casos donde el manual proporciona instrucciones específicas que deben seguirse en el orden expuesto para colocar las opciones que el usuario puede instalar; vea p. 13, 14, 16, 18, 19, 21.)

- Asegúrese de colocar la unidad siempre de forma que quede nivelada y estable. No la coloque nunca en soportes que podrían tambalearse o en superficies inclinadas.

- Evite dañar el cable de alimentación. No debe doblarlo excesivamente, pisarlo, colocar objetos pesados sobre él, etc. Un cable que ha sufrido desperfectos puede dar lugar a un shock eléctrico o incendios. No debe utilizar nunca un cable de alimentación que haya sufrido desperfectos.

- Si un niño de corta edad utiliza la unidad, un adulto deberá supervisarle hasta que el niño sea capaz de seguir todas las normas esenciales para utilizar la unidad sin peligro.

- Proteja la unidad de impactos fuertes. (Que no caiga al suelo!

- No debe conectar la unidad a una toma de corriente donde hallan conectados un número excesivo de aparatos. Tenga un cuidado especial cuando utiliza alargos - el consumo total de todos los aparatos no debe sobrepasar la capacidad en vatios / amperios del cable Las cargas excesivas pueden ocasionar que el cable se sobrecaliente y finalmente que se funda.

- Antes de utilizar la unidad en un país extranjero, consulte con el Servicio Posventa de Roland o con un distribuidor autorizado listado en la página “Información”.

- Antes de intentar instalar la placa de circuitos (modelo no. VS8F-2, VM-24E, VM-24C; p. 26). desconecte el cable de alimentación y apague la unidad.

⚠ PRECAUCIÓN

- Cuando conecte o desconecte el cable de alimentación del enchufe o de la unidad, siempre deberá cogerlo por el extremo.

- Debe intentar evitar que se enreden los cables y colocarlos de forma que estén fuera del alcance de los niños de corta edad.

- Nunca debe subirse encima de la unidad ni colocar objetos pesados sobre ella.

- Nunca debe manejar el cable de alimentación con las manos mojadas cuando lo conecta o lo desconecta de la red eléctrica o de la unidad.

- Antes de desplazar la unidad, desconéctela de la toma de corriente y desconecte los cables de los aparatos externos conectados.

- Antes de limpiar la unidad, apáguela y desconecte el cable de alimentación de la red eléctrica (p. 26).

- Si hubiera una tormenta con relámpagos, desconecte el cable de alimentación

- Instale sólo la(s) placa(s) (modelo no. VS8F-2, VM-24E, VM-24C). Extraiga sólo los tornillos especificados (p. 13, 14, 16, 18, 19, 21).

Países de la UE

CE Este producto cumple con los requisitos de las Directrices Eurporeas EMC 89/336/EEC y LVD 73/23/EEC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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Notas Importantes

In addition to the items listed under "IMPORTANT SAFETY INSTRUCTIONS" and "USING THE UNIT SAFELY" on pages 2 and 3, please read and observe the following:

Alimentación

- No utilice esta unidad en el mismo circuito de alimentación en el que tenga conectado otro aparato que pueda generar ruido en línea (como por ejemplo, un motor eléctrico o un sistema de encendido variable).

- Antes de conectar esta unidad a otros aparatos, apague todas las unidades, para así prevenir posibles daños o mal funcionamiento de altavoces o otros aparatos.

Colocación

- Utilizar la unidad cerca de amplificadores de corriente (o cualquier otro equipo que contenga transformadores de corriente alta) puede provocar un ruido continuo. Para solventar el problema, cambie la orientación de su unidad; o bien muévala lejos de la fuente de interferencia.

- Este aparato puede producir interferencias en la recepción de televisión y radio. No utilice este aparato cerca de dichos receptores.

- Para evitar posibles averías, no utilice la unidad en zonas húmedas, como por ejemplo en una zona expuesta a lluvia o a humedad.

Mantenimiento

- Para la limpieza diaria de la unidad, utilice una gamuza suave y seca o bien una que haya sido ligeramente humedecida con agua. Para extraer la suciedad que todavía pueda quedar, utilice una gamuza impregnada en un detergente suave, no abrasivo. Después, asegúrese de limpiar concienzudamente la unidad con una gamuza seca y suave.

- No utilice nunca gasolina, diluyentes, alcohol o disolventes de cualquier tipo, para evitar así el posible riesgo de deformación y decoloración.

Precauciones Adicionales

- Haga un buen uso de los botones de la unidad, de los deslizadores y de cualquier otro control; de la misma manera que cuando utilice sus jacks y conectores. Un mal uso puede provocar un mal funcionamiento.

- Cuando conecte y desconecte todos los cables, hágalo con el conector en la mano y nunca estirando del cable. De esta manera, evitará que se produzcan daños en cualquiera de los elementos internos del cable.

- La unidad desprenderá una pequeña cantidad de calor durante su normal funcionamiento.

- Para evitar molestar a sus vecinos, trate de mantener el volumen de su unidad en unos niveles razonables. Puede optar por utilizar auriculares y así no tendrá que preocuparse por los que tenga a su alrededor (especialmente a altas horas de la madrugada).

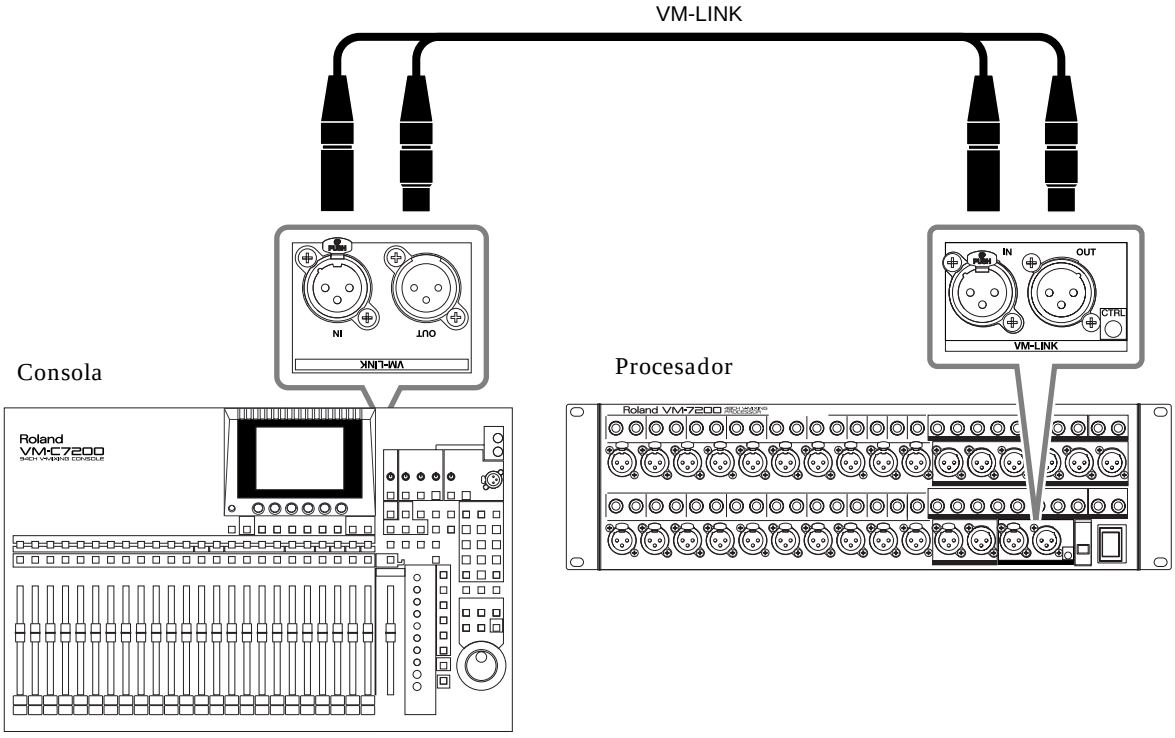
- Cuando necesite transportar la unidad, meta la unidad en la caja (incluyendo las protecciones) en la que venía cuando la compró, si es posible. Si no es posible, deberá utilizar otros materiales de empaquetado equivalentes.

- Utilice un cable Roland para efectuar la conexión. ISi utiliza un cable de otro fabricante, tenga en cuenta lo siguiente.
  - Algunos cables contienen resistores. No utilice cables que contienen resistores para efectuar conexiones a esta unidad. El uso de dichos cables puede causar que el nivel de sonido quede excesivamente bajo o incluso, que sea inaudible. Para obtener información acerca de las caracteristicas de los diferentes cables, contacte con los fabricantes correspondientes.

Prestaciones Principales

Revolucionario Concepto de Diseño (Sistemas Separados)

El Sistema de la Serie VM-7000 Mezcla-V de Roland adopta el concepto de **sistemas separados** en el que la sección de entrada / salida (el procesador) y la sección de operaciones (la consola) están completamente separadas.



El procesador y la consola están conectadas mediante dos cables de audio digitales estándar AES / EBU (VM-Link). Sólo los datos relacionados con las operaciones de la consola se envían al procesador. No se intercambia señal de audio alguna entre los dos aparatos, lo que elimina el talkback y otros problemas. Por eso, **Vd. puede montar fácilmente un sistema de amplificación general muy resistente al ruido.**

Una Completa Gama de Conectores de Entrada y de Salida

El procesador dispone de diferentes conectores, entre ellos se encuentran los conectores XLR, compatibles con una gama de niveles, desde el nivel de micrófono hasta el nivel de línea, los jacks fono de 1 / 4 pulgadas (balanceados y sin balancear) e interfaces digitales (S / P DIF coaxial y AES / EBU) para conectar distintos tipos de aparatos digitales, desde aparatos de uso domestico hasta equipos de gama profesional. **Todos le proporcionan un procesamiento de calidad profesional.**

Hasta Nueve Grupos de Efectos en estéreo (Habiendo Instalado el VS8F-2)

Estos procesadores disponen de dos grupos de efectos digitales en estéreo de 24 bits (compatibles con el VS8F-2 de Roland). Esto le permite recuperar al instante los algoritmos para los efectos de reverb y compresión, simulador de micrófono, modelado de altavoces y otros de los efectos tan populares procedentes de la Workstation de Estudio Digital VS-1680 de Roland y de la Estación Mezcla-V VM-3100. Además, existe un grupo adicional de **efectos estéreo sólo-Master** que puede insertarse sólo en MASTER OUT / MONITOR OUT. Y también, como puede instalar hasta tres Placas de Ampliación de Efectos VS8F-2, significa que **puede utilizar hasta nueve sorprendentes efectos estéreo**.

Libertad en la Aplicación del Direccionamiento

Los mezcladores anteriores disponían de un número fijo de buses, un hecho que ha limitado las aplicaciones en que se podían utilizar y que ha hecho necesarios los aparatos periféricos. Con el **FlexBus** del VM-7200, dichas limitación han desaparecido dado a que le proporciona absoluta libertad en la configuración de los direccionamientos más apropiada para la tarea a realizar. Además, el procesador aporta un **patchbay virtual** que permite modificar libremente las conexiones de los canales de entrada y de salida—sin la necesidad de cambiar cable alguno.

Equipado con un Analizador de Espectro

El VM-7200 también proporciona un **analizador de espectro** que permite comprobar las propiedades acústicas de la sala en actuaciones en vivo. Dispone de un generador de ruido y un oscilador, para que pueda ver las características acústicas en la pantalla de la consola, permitiéndole lograr rápid y eficazmente ajustes perfectos (con los ajustes del ecualizador).

■ En Qué se Diferencian el VM-7200 y el VM-7100

El número de jacks de entrada y salida proporcionados por el VM-7200 y el VM-7100 difiere, tal como se muestra abajo. Verifique el modelo que utiliza para evitar confusiones.

Jacks de Entrada Analógicos

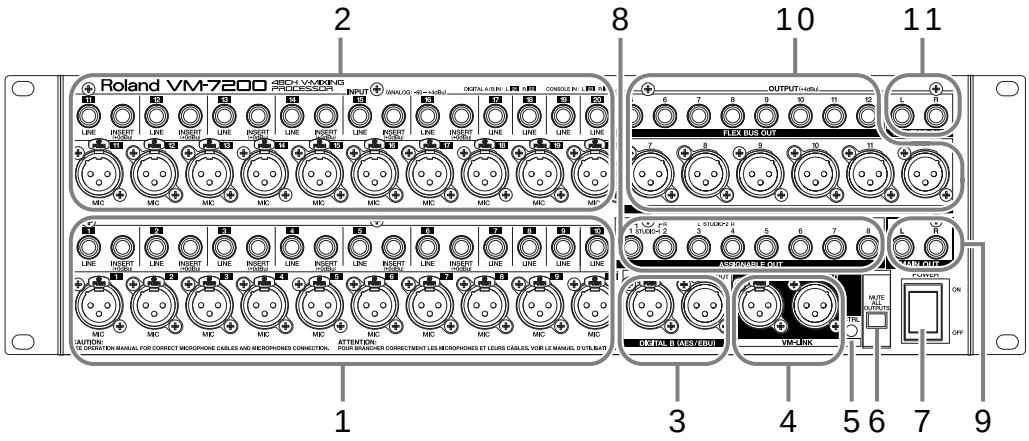
VM-7200: 20 (canal.1–canal.20)
VM-7100: 10 (canal.1–canal.10)

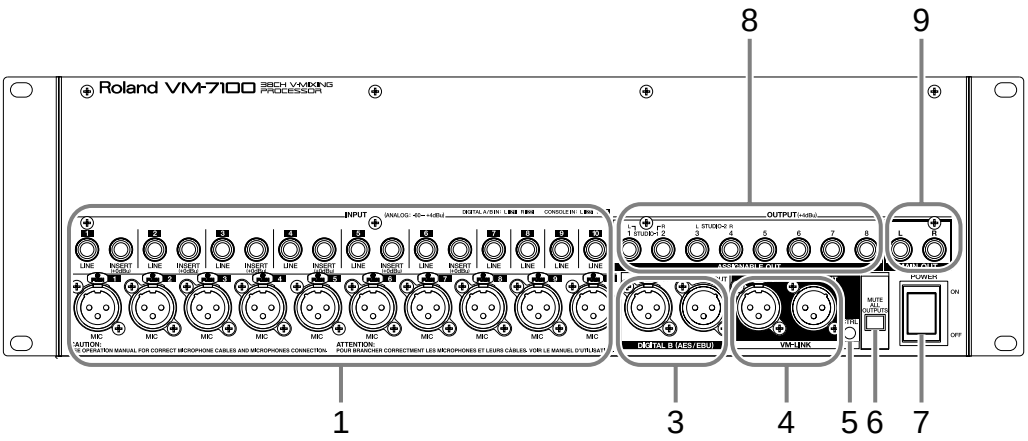
Jacks de Salida Analógicos

VM-7200: 22 (MAIN OUT L / R, REC OUT L / R, MONITOR OUT L / R, FLEX BUS OUT 5–12, ASSIGNABLE OUT 1–8)
VM-7100: 12 (MAIN OUT L / R, REC OUT L / R, ASSIGNABLE OUT 1–8)

Paneles Frontal y Posterior

Panel Frontal





1 ENTRADAS 1–10

Son conectores que sirven para entrar señales de audio analógico en los Canales 1–10. Conecte micrófonos, instrumentos o similares a estas entradas (p. 27). Los micrófonos u otros aparatos conectados a los conectores MIC (tipo XLR) pueden alimentarse con corriente de 48 voltios DC (alimentación phantom).

LINE: Utilizado para conectar instrumentos y similares (fono de 1/4, balanceado o sin balancear)

MIC: Utilizado para conectar micrófonos e instrumentos con salida balanceada (tipo XLR).

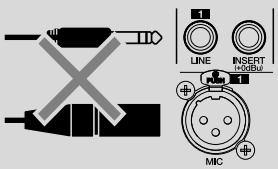
INSERT: Utilizado para insertar efectos procedentes de unidades de efectos externos y similares en las entradas de los Canales 1-6 (fono de 1/4 pulgadas, TRS).

2 ENTRADAS 11–20

Son conectores que sirven para entrar señales de audio analógico a las Canales 11–20. Sólo el VM-7200 dispone de estos conectores. Utilícelos tal como haría con las ENTRADAS 1–10.

NOTE

No debe conectar simultáneamente jacks para el mismo canal a las entradas de los conectores MIC y LINE. Seleccione uno o el otro.



3 DIGITAL B (AES/EBU)

Son conectores de entrada / salida de audio digital de tipo XLR. Utilícelos para conectar aparatos de gama profesional y similares a la unidad (p. 29). **No puede utilizarlos para hacer que entren/salgan señales de audio analógicas.**

IN: Utilizado para entrar señales de audio digital. **DIGITAL B IN no puede utilizarse cuando utiliza DIGITAL A IN.**

OUT: Utilizado para enviar señales de audio digital. Seleccione las señales de audio que desee que salgan hacia el patch bay de la consola (vea el Manual del Usuario de la consola).

4 VM-LINK

Son conectores para la entrada / salida de las señales de control del procesador de mezcla (VM-LINK). Se conectan a la consola de mezcla (p. 23).

5 CTRL (Control)

Al encender la unidad, este indicador se ilumina en verde. Cuando se transmiten datos VM-LINK entre el procesador y la consola, parpadea en verde.

NOTE

El indicador rojo **CTRL** sirve para indicar que existe un problema en la transmisión de datos VM-LINK. Compruebe la conexión entre el procesador y la consola.

6 MUTE ALL OUTPUTS

Mientras se pulsa este botón, se detiene el envío del sonido a todos los conectores de salida (se enmudece el sonido). Púlselo para evitar que se produzca ruido al insertar o extraer jacks. (p. 25).

7 POWER

Enciende / apaga la consola.

8 ASSIGNABLE OUT

Son jacks de salida de audio analógico (fono de 1 / 4, balanceado / sin balancear). El sonido que sale de estos jacks es el mismo que sale de MULTI OUT 17–24 (R-BUS (RMDB2)).

9 MAIN OUT

Se conectan con las etapas de potencia y los altavoces principales. El sonido que sale de esta salidas es el mismo que sale de MAIN OUT, localizado en el panel posterior.

10 FLEX BUS OUT

Son los conectores y jacks de salida de audio analógico asignados al FLEX BUS (fono de 1 / 4, balanceados / sin balancear; tipo XLR, balanceado). Conecte los altavoces de monitoraje y equipos similares a estos conectores.

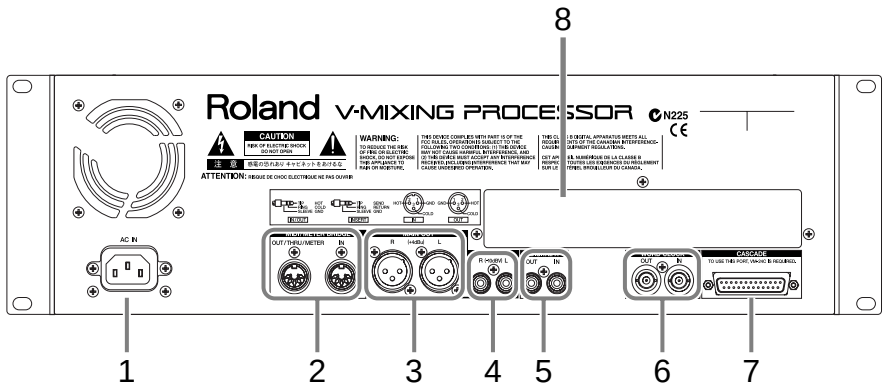
MEMO

Cuando el modo Bus se ajusta en **INT**, las señales de los FlexBuses 1–8 (5–8) no salen mediante FLEX BUS OUT (puede hacer que salgan las señales por el MASTER OUT y otras salidas). Vea el Manual del Usuario de la consola.

11 MONITOR OUT

Se conectan con las etapas de potencia y los altavoces de monitoraje. Sólo el VM-7200 dispone de estos conectores.

Rear Panel



1 AC IN

Sirve para conectar el cable de alimentación suministrado con el procesador.

2 MIDI/METER BRIDGE

Utilícelos para conectar el Puente de Medidores MB-24 de Roland, aparatos MIDI externos (controladores MIDI) y otros aparatos.

OUT/THRU/METER: Utilizar como conector MIDI OUT o MIDI THRU. Normalmente se le conecta el MB-24.

IN: Aquí se reciben los mensajes MIDI. Conéctelo al conector MIDI OUT del aparato MIDI externo.

3 MAIN OUT

Se conectan a las etapas de potencia y los altavoces principales. Los mismos sonidos salen de estos conectores que del MAIN OUT del panel frontal.

4 REC OUT

Aquí se conecta normalmente un aparato de audio de gama domestico (como, por ejemplo, una grabadora radio / cassette).

5 DIGITAL A

Son conectores de entrada de audio digital de tipo coaxial. Se utilizan para grabadoras MD o grabadoras DAT (p. 29). **No puede utilizarlos para hacer que entren/salgan señales de audio analógicas.**

IIN: Utilizado para entrar señales de audio digital. **DIGITAL A IN no puede utilizarse cuando utiliza DIGITAL B IN.**

OUT: Utilizado para enviar señales de audio digital. Seleccione las señales de audio que desee que salgan hacia el patch bay de la consola (vea el Manual del Usuario de la consola).

6 WORD CLOCK

Sirven para la entrada / salida de mensajes de word clock utilizados para sincronizar aparatos digitales externos (tipo BNC) (p. 33).

IN: Para recibir mensajes de word clock.

OUT: Para enviar mensajes de word clock.

NOTE

No conecte otro cable de alimentación que no sea el suministrado con la unidad. Hacerlo puede provocar daños en el equipo.

NOTE

Al utilizar mensajes de word clock, es preciso ajustar el terminador. Vea el Manual del Usuario de la consola.

7 CASCADE

Son conectores para efectuar la conexión en cascada de dos consolas de mezcla. (p. 32).

8 Tapa Posterior

Aquí puede conectar una placa de ampliación I/O (suministrada por separado) **VM-24E** (p. 14, 19)

NOTE

Para poder utilizar el conector CASCADE, debe adquirir el Kit de Cascada de Roland **VM-24C**.

VM-24C incluye dos placas, una **MASTER** y una and a **ESCLAVA**. Instale la placa **MASTER** en uno de los procesadores y la placa **ESCLA** en el otro (p. 16, 21).

Instalar Aparatos Opcionales

Precauciones sobre la Instalación de Aparatos Opcionales

- Siempre debe apagar la unidad y desconectar el cable de alimentación antes de instalar la placa de circuitos (modelo número. VS8F-2, VM-24C, VM-24E; p. 26).
- Instale sólo la(s) placa(s) especificadas (modelos números. VS8F-2, VM-24C, VM-24E). Extraiga sólo los tornillos especificados (p. 13, 14, 16, 18, 19, 21).
- Para evitar el riesgo de dañar los componentes internos por descargas de electricidad estática, al manejar la placa, observe lo siguiente.
  - Antes de tocar la placa, toque un objeto metálico (por ejemplo, una cañería de agua), para asegurarse de haber descargado cualquier carga de electricidad estática que lleve.
  - Al manejar la placa, tenga cuidado de tocar sólo los cantos. Evite tocar sus componentes electrónicos o sus conectores.
- Utilice el destornillador de "estrella" del tamaño apropiado para el tornillo (un destornillador nº 2). Si el destornillador no es del tamaño indicado, puede deformar el tornillo o es posible que no pueda atornillarlo.

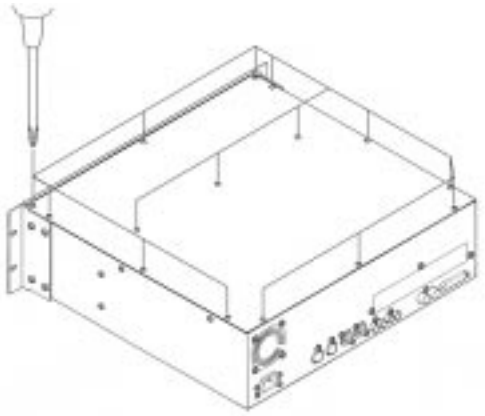
- Para extraer los tornillo, haga girar el destornillador en el sentido contrario de las agujas del reloj. Para atornillarlos, hágalo girar en el sentido de las agujas del reloj.
- Tenga cuidado de que no caigan los tornillos dentro del chasis de la serie VM-7000.
- No toque los circuitos impresos ni los terminales de conexión.
- Nunca debe emplear la fuerza excesiva al instalar una Placa de Ampliación. Si a la primera no encaja correctamente, quítela y vuelva a instalarla.
- Una vez completada la instalación de la Placa de Ampliación, compruebe su trabajo.

Instalar Procesadores de Efectos (VS8F-2)

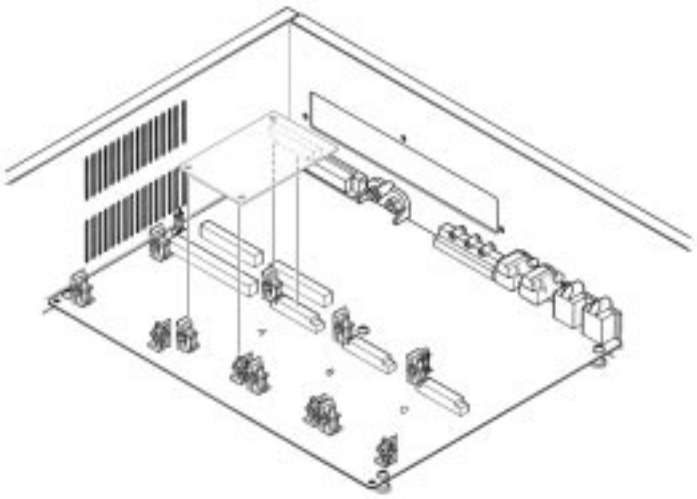
La serie VM-7000 dispone de dos procesadores de efectos estéreo. Si desea añadir más efectos, Roland ofrece la Placa de Ampliación de Efectos **VS8F-2**, suministrada por separado. Puede instalar hasta tres de estas placas de ampliación en el serie VM-7000. Si instala placas VS8F-2, puede utilizar un máximo de nueve efectos estéreo en la serie VM-7000 sin necesidad de aparatos externos. Roland recomienda que instale una o más placas VS8F-2.

1 Apague todos los aparatos y desconecte todos los cables de la unidad de la serie VM-7000.

2 Extraiga sólo los tornillos especificados en la siguiente figura y separe el panel superior de la unidad de la serie VM-7000.



3 Dentro se encuentran tres conectores y nueve pins de plástico. Inserte el conector de la VS8F-2 en el conector interno y, a la vez, inserte los pins de plástico en los agujeros de la VS8F-2 para fijarla.



NOTE

Si instala sólo una VS8F-2, conéctela en EFFECT A. Si instala dos, conéctelas en EFFECT A y EFFECT B.

4 Utilizando los tornillos especificados que quitó en el paso 2, monte de nuevo el panel superior.

5 Con esto, completamos la instalación de la VS8F-2.

Instalar Conectores R-BUS (RMDB2) (VM-24E)

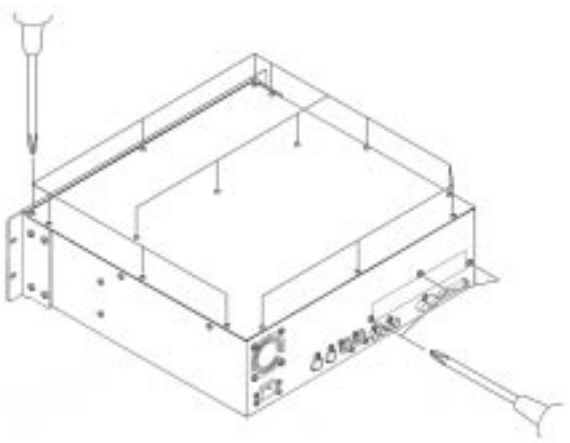
Roland también ofrece la Placa de Ampliación I/O **VM-24E**, suministrada por separado. Al instalar una VM-24E, puede añadir hasta tres conectores R-BUS (RMDB2). Conectando un DIF-AT de Roland, puede intercambiar señales de audio digitales, 8 de entrada y 8 de salida, con una grabadora multi-pista digital como, por ejemplo, la ALESIS adat o la TASCAM DA-88 (máximo tres grabadoras). Roland recomienda que instale la VM-24E.

MEMO

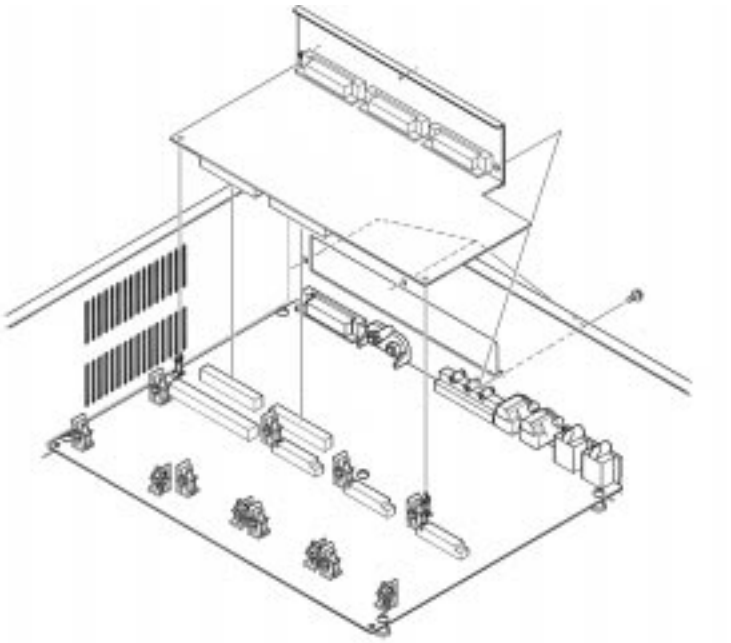
R-BUS, RMDB2 y RMDB II disponen del mismo estándar Roland.

1 Apague todos los aparatos y desconecte todos los cables de la unidad de la serie VM-7000.

2 Extraiga sólo los tornillos especificados en la siguiente figura y separe el panel superior y la tapa posterior de la unidad de la serie VM-7000.



3 Inserte el conector de la VM-24E en el conector interno y, a la vez, inserte los pins de plástico en los agujeros de la VM-24E.



4 Utilizando los tornillos (especificados) que quitó en el paso 2, monte la VM-24E en el panel posterior. Mantenga el panel posterior en un lugar seguro.

5 Utilizando los tornillos (especificados) que quitó en el paso 2, monte el panel superior.

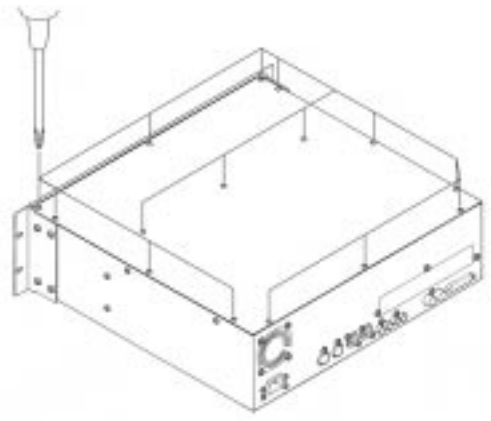
6 Con esto completamos la instalación de la VM-24E.

Instalar el Kit de Cascada (VM-24C)

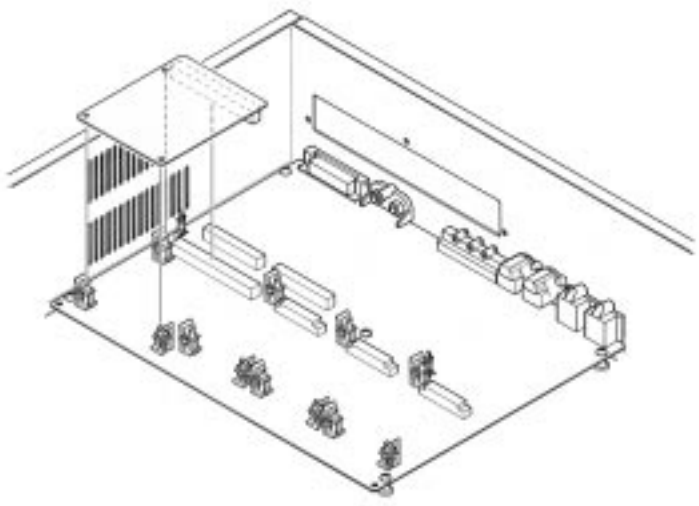
Roland también ofrece el **VM-24C** Kit de Cascada, suministrado por separado. Una vez instalada la VM-24C, podrá utilizar el conector CASCADE. Conectando en cascada dos unidades VM-7000, pueden soportarse un máximo de 94 canales de entrada (si utiliza la VM-24E y el DIF-AT). Roland recomienda que instale la VM-24C.

1 Apague todos los aparatos y desconecte todos los cables de la unidad de la serie VM-7000.

2 Extraiga sólo los tornillos especificados en la siguiente figura y separe el panel superior y la tapa posterior de la unidad de la serie VM-7000.



3 Inserte el conector de la VM-24C en el conector interno y, a la vez, inserte los pins de plástico en los agujeros de la VM-24C.



4 Utilizando los tornillos (especificados) que quitó en el paso 2, monte el panel superior.

5 Con esto completamos la instalación de la VM-24C.

NOTE

VM-24C incluye dos placas, una **MASTER** y una and a **ESCLAVA**. Instale la placa **MASTER** en uno de los procesadores y la placa **ESCLA** en el otro (p. 16, 21).

Si no instala ambas placas, no puede utilizar el conector CASCADE. (p. 33)

MEMO

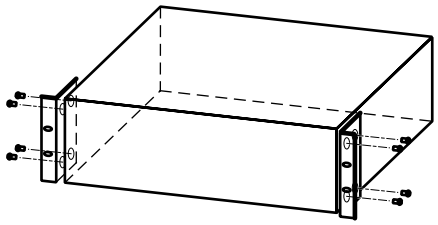
El procesador que incluye la placa ESCLAVA del Kit de Cascada VM-24C no funciona como unidad master en una configuración de un sólo procesador. (p. 33)
Si lo desea, extraiga la placa ESCLAVA del procesador.

Cambiar los Elementos para el Montaje en Rack (RO-7000)

Las unidades de la serie VM-7000 disponen de escuadras para el montaje de la unidad en un sistema de rack. Suministradas por separado, otro juego de escuadras el — **RO-7000** — está disponible para su adquisición. Cuando el RO-7000 se instala, la serie VM-7000 queda en una posición ligeramente desplazada hacia atrás en el rack. De esta forma los conectores para los cables conectados al panel frontal quedan resguardados.

1 Apague todos los aparatos y desconecte todos los cables de la unidad de la serie VM-7000.

2 Extraiga sólo los tornillos especificados en la siguiente figura y separe las escuadras para montura en rack suministradas con la VM-7000.



3 Utilizando los tornillos (especificados) que quitó en el paso 2, monte el RO-7000.

4 Con esto, terminamos la instalación del RO-7000.

MEMO

Existen dos maneras de fijar el RO-7000. Utilice el método más apropiado para sus necesidades.

Installation de dispositifs optionnels

Précautions à prendre lors de l'installation de dispositifs optionnels

- Toujours éteindre et débrancher l'appareil avant de commencer l'installation de la carte. (modèle no VS8F-1, VM-24E, VM-24C; p. 26).
- N'installez que les cartes de circuits imprimes spécifiées (modèle no VS8F-2, VM-24E, VM-24C). Enlevez seulement les vis indiquées (p. 13, 14, 16, 18, 19, 21).
- Veuillez suivre attentivement les instructions suivantes quand vous manipulez la carte afin d'éviter tout risque d'endommagement des pièces internes par l'électricité statique.
  - Toujours toucher un objet métallique relié à la terre (comme un tuyau par exemple) avant de manipuler la carte pour vous décharger de l'électricité statique que vous auriez pu accumuler.
  - Lorsque vous manipulez la carte, la tenir par les côtés. Évitez de toucher aux composants ou aux connecteurs.
- Utiliser un tournevis cruciforme correspondant à la taille de la vis (un tournevis numéro 2). En cas d'utilisation d'un tournevis inapproprié, la tête de la vis pourrait être endommagée.
- Pour enlever les vis, tourner le tournevis dans le sens contraire des aiguilles d'une montre. Pour resserrer, tourner dans le sens des aiguilles d'une montre.

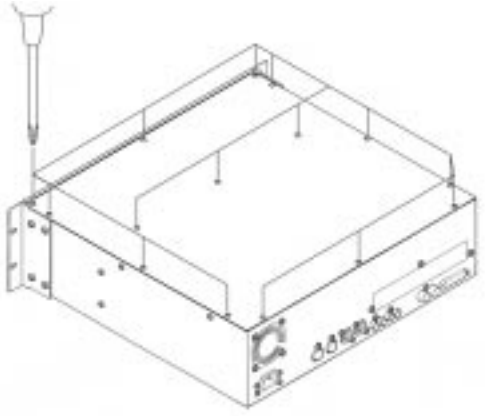
- Veillez à ne pas laisser tomber de vis dans le châssis du VM-7000.
- Ne pas toucher aux circuits imprimés ou aux connecteurs.
- Ne jamais forcer lors de l'installation de la carte de circuits imprimés. Si la carte s'ajuste mal au premier essai, enlevez la carte et recommencez l'installation.
- Quand l'installation de la carte de circuits imprimés est terminée, revérifiez si tout est bien installé.

Installation d'un processeur à effet (VS8F-2)

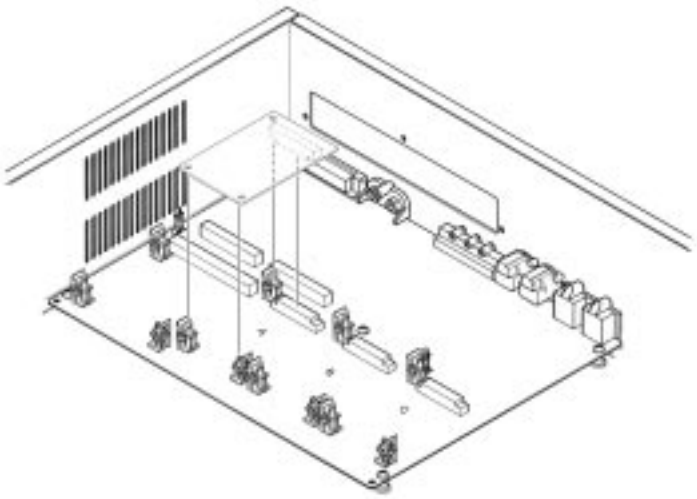
La série VM-7000 possède deux processeurs à effet stéréo. Si vous désirez ajouter plus d'effets, Roland propose séparément la carte d'extension à effet **VS8F-2**. Jusqu'à trois de ces cartes peuvent être installées dans le VM-7000. Si des cartes VS8F-2 sont installées, vous pouvez utiliser un maximum de huit effets stéréo sur le VM-7000 sans vous servir d'aucun équipement externe. Roland vous recommande d'installer une ou plusieurs cartes VS8F-2.

1 Éteindre l'appareil et déconnecter tous les câbles du VM-7000.

2 N'enlever que les vis spécifiées sur le schéma suivant et détacher la plaque du dessus du VM-7000.



3 Il y a trois connecteurs et neuf broches en plastique à l'intérieur. Insérer simultanément le connecteur du VS8F-2 dans le connecteur interne et les broches en plastique dans les trous du VS8F-2 pour le fixer fermement.



NOTE

Si vous installez seulement une carte VS8F-2, la connecter à EFFET A. Si vous installez deux cartes VS8F-2, les connecter à EFFET B.

4 Utiliser les vis enlevées à l'étape 2 pour fixer à nouveau la plaque du dessus.

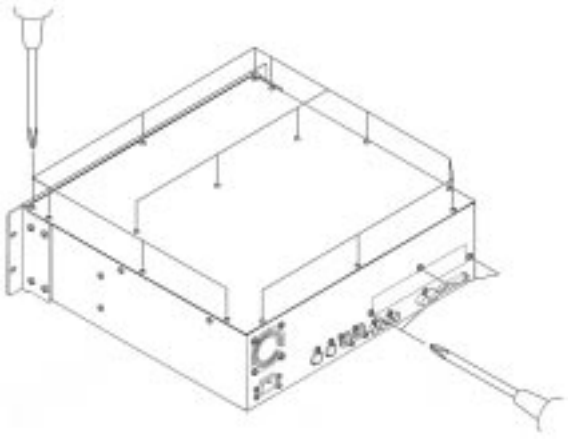
5 Ceci complète l'installation du VS8F-2.

Installation d'un connecteur (VM-24E) R-BUS (RMDB2)

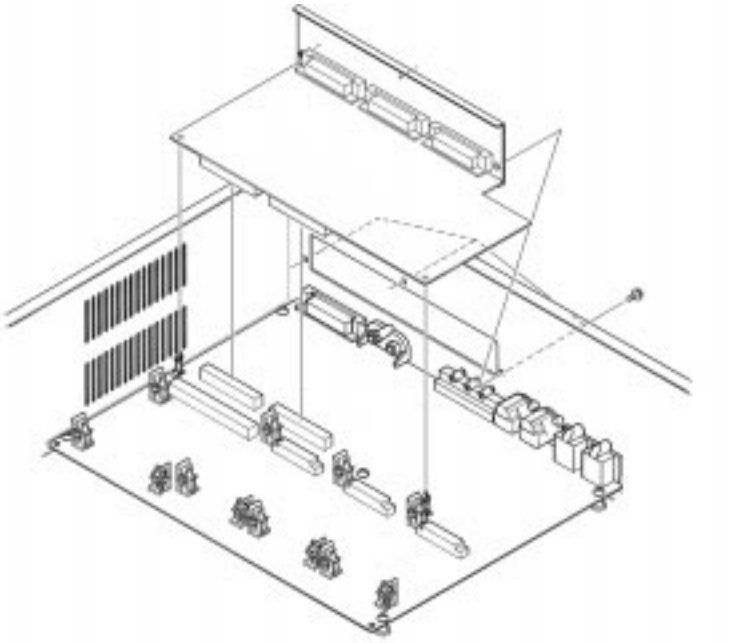
Roland propose aussi une carte d'extension **VM-24E** I/O que vous pouvez acheter séparément. Quand le VM-24E est installé, vous pouvez ajouter trois connecteurs R-BUS (RMDB2). En connectant le DIF-AT Roland, vous pouvez échanger des signaux audio digitaux 24 bit 8 entrées/8 sorties avec un enregistreur digital multi-pistes comme le ALESIS adat ou le TASCAM DA-88 (maximum de 3 enregistreurs). Roland vous recommande d'installer le VM-24E.

1 Éteindre l'appareil et déconnecter tous les câbles du VM-7000.

2 N'enlever que les vis spécifiées sur le schéma suivant et détacher la plaque du dessus et la plaque arrière du VM-7000.



3 Insérer simultanément le connecteur du VM-24E dans le connecteur interne et les broches en plastique dans les trous du VM-24E pour le fixer fermement.



4 Utiliser les vis enlevées à l'étape 2 et fixer le VM-24E à la plaque arrière. Conserver la plaque arrière dans un endroit sûr.

5 Utiliser les vis enlevées à l'étape 2 pour fixer à nouveau la plaque du dessus.

6 Ceci complète l'installation du VM-24E.

Installation d'un kit Cascade (VM-24C)

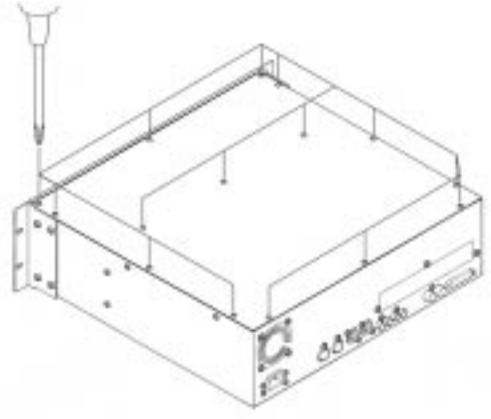
Roland propose aussi séparément le kit Cascade (**VM-24C**). Une fois le VM-24C installé, vous serez en mesure d'utiliser le connecteur CASCADE. En connectant en cascade deux unités de la série VM-7000, vous pourrez utiliser un maximum de 94 canaux d'entrée (lorsque le VM-24E et le DIF-AT sont utilisés). Roland vous recommande d'installer un VM-24C.

NOTE

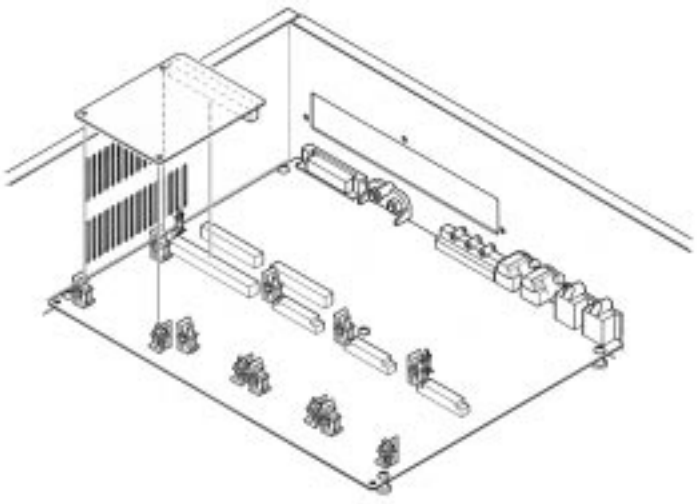
Il est impossible d'utiliser le connecteur CASCADE si le VM-24C n'est pas installé. (p. 32)

1 Éteindre l'appareil et déconnecter tous les câbles du VM-7000.

2 N'enlever que les vis spécifiées sur le schéma suivant et détacher la plaque du dessus du VM-7000.



3 Insérer simultanément le connecteur du VM-24C dans le connecteur interne et les broches en plastique dans les trous du VM-24C pour le fixer fermement.



4 Utiliser les vis enlevées à l'étape 2 pour fixer à nouveau la plaque du dessus.

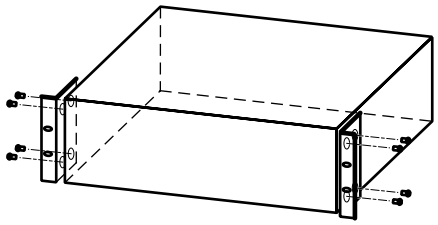
5 Ceci complète l'installation du VM-24C.

Changement du matériel de montage en rack (RO-7000)

La série VM-7000 est fournie avec des supports pré-installés en rack qui permettent à l'appareil d'être monté dans un rack. Un différent ensemble de supports (**RO-7000**) est vendu en option. Quand le RO-7000 est installé, le VM-7000 sera positionné légèrement vers l'arrière (éloigné de vous) dans le rack. Ainsi, les connecteurs de câbles qui sont branchés dans les fiches de la plaque avant ne gêneront pas.

1 Éteindre l'appareil et déconnecter tous les câbles du VM-7000.

2 N'enlever que les vis spécifiées sur le schéma suivant et détacher les supports de rack fournis avec votre VM-7000.



3 Utiliser les vis enlevées à l'étape 2 et fixer le RO-7000.

4 Ceci complète l'installation du RO-7000.

MEMO

Il y a deux façons de fixer le RO-7000. Utiliser la méthode qui vous convient le mieux.

Conexiones Básicas

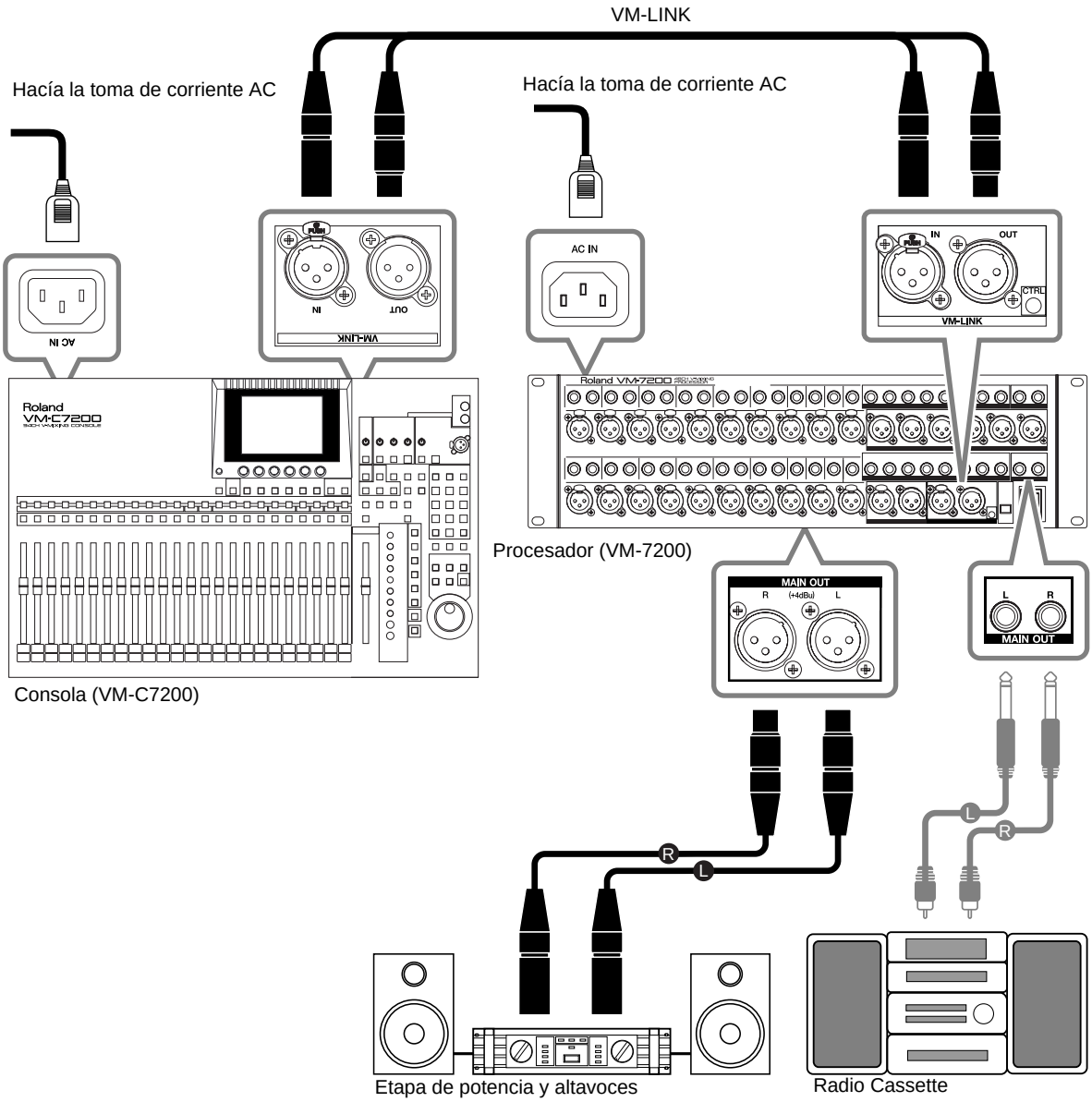
Conectar a la Consola (VM-LINK)

La VM-7200 (VM-7100) puede conectarse a las consolas de mezcla Roland (VM-C7200, VM-C7100). Utilice el cable VM-LINK (AES/EBU cable de audio digital) suministrado con la unidad.

NOTE

Para evitar dañar los altavoces u otros aparatos o que funcionen mal, antes de efectuar cualquier conexión, deberá bajar el volumen de los aparatos y después apagarlos.

■ Conectar al VM-C7200

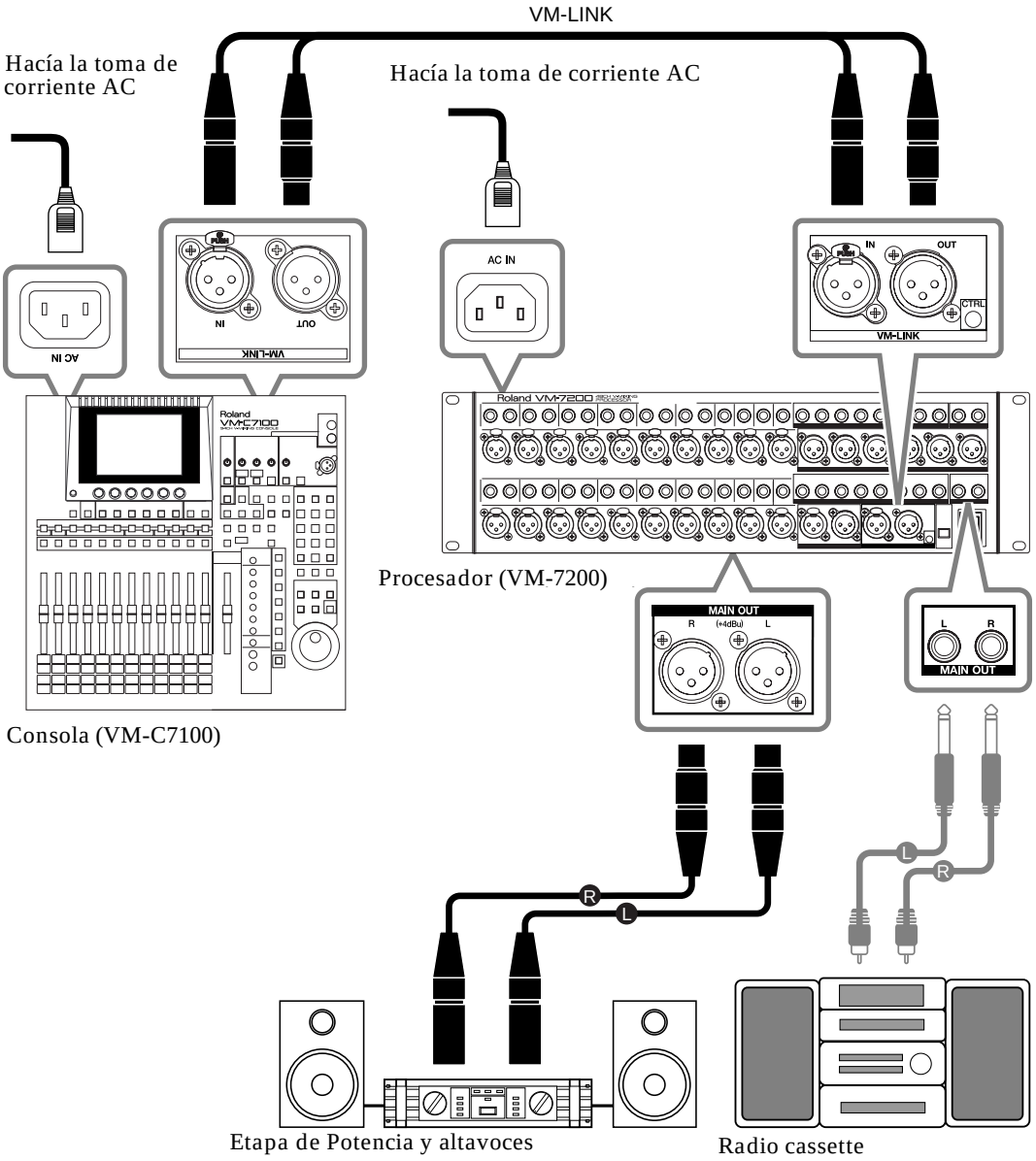


Si utiliza auriculares, conéctelos al jack PHONES de la VM-C7200.

■ Conectar al VM-C7100

NOTE

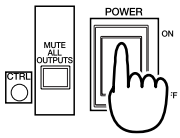
.Para evitar dañar los altavoces u otros aparatos o que funcionen mal, antes de efectuar cualquier conexión, deberá bajar el volumen de los aparatos y después apagarlos



Si utiliza auriculares, conéctelos al jack PHONES de la VM-C7100.

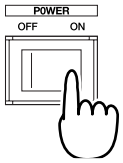
El Encendido

1 Ajuste en on el interruptor **POWE** del procesador de mezcla (VM-7200, VM-7100) y verifique que esté iluminado el indicador **CTRL**.



Pulse el lado "ON" (superior) del interruptor POWER

2 Ajuste en on el **Interruptor POWER** de la consola de mezcla (VM-C7200, VM-C7100).



Pulse el lado "ON" (derecho) del interruptor POWER

3 Encienda los aparatos de audio (etapas de potencia, altavoces de monitoraje y otros aparatos) conectados al procesador de mezcla.

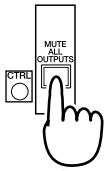
4 Suba el volumen del equipo de audio hasta lograr un nivel apropiado.

■ Enmudecimiento

Normalmente, para evitar que haya ruido al encender o apagar la unidad, o al conectar o desconectar micrófonos, debe bajar previamente el volumen.
No obstante, en las situaciones en las que resulte difícil bajar el volumen, como cuando el procesador y la consola estén separadas, como alternativa, puede enmudecer provisionalmente el sonido que sale del procesador.

1 Pulse **[MUTE ALL OUTPUTS]** localizado en el panel frontal del procesador. Mientras mantiene pulsado el botón, no sale sonido del procesador (se enmudece). Ahora, **CTRL se ilumina en rojo**.

CTRL se ilumina en rojo



Al mantener pulsado el botón, se enmudecerá el sonido

2 Una vez conectado el micrófono (o de realizar la tarea, cualquiera que sea), deje de pulsar **[MUTE ALL OUTPUTS]**.

NOTE

Una vez completadas las conexiones (p. 23), encienda los distintos aparatos en el orden especificado. Si cambia el orden, se arriesga de ocasionar el mal funcionamiento y/o dañar los altavoces u otros aparatos.

Antes de encender los aparatos, siempre deberá bajo sus volúmenes. Incluso con el volumen al mínimo, puede escucharse, algún sonido al encender un aparato. Esto es normal y no es indicativo de un mal funcionamiento.

MEMO

Durante el encendido, el indicador de **CTRL** se ilumina en naranja. **CTRL** cambiará a verde una vez completado el encendido del procesador.

Inicie la verificación de la configuración del sistema sólo después de haber confirmado que el procesador se haya encendido correctamente (**CTRL** se ilumina en verde). Vea el Manual del usuario de la consola.

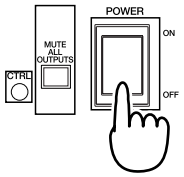
Apagar los Aparatos

1 Baje el volumen de los aparatos.

2 Apague los aparatos.

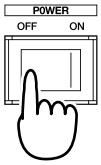
3 Si fuera necesario, grabe internamente en la consola o en una tarjeta de memoria los ajustes de funcionamiento actuales

4 Pulse el interruptor **POWER** de la consola de mezcla (VM-C7200, VM-C7100) para apagarla.



Pulse el lado “OFF” (izquierdo) del interruptor POWER

5 Pulse el interruptor **POWER** del procesador de mezcla (VM-7200, VM-7100) para apagarlo.



Pulse el lado “OFF” (izquierdo) del interruptor POWER

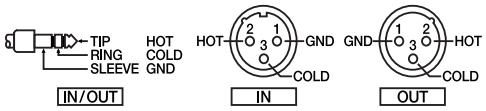
Varias Configuraciones de Conexiones

Conectar Micrófonos e Instrumentos (Conexión Analógica)

Este apartado expone ejemplos para conectar micrófonos e instrumentos al procesador.

Precauciones a observar al Conectar Micrófonos

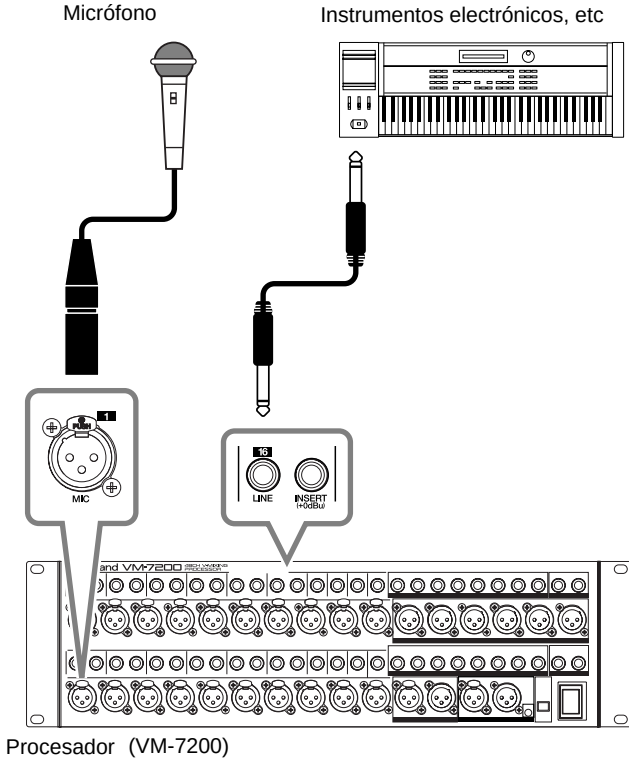
- La asignación de pins para cada conector se muestra abajo. Antes de efectuar cualquier conexión, asegúrese de que esta asignación de pins es compatible con la de los demás aparatos en uso.



- Según la posición de los micrófonos en relación a los altavoces, es posible que se produzcan acoples. Puede remediarlo:
  1 Cambiando la orientación del (de los) micrófono(s).
  2 Volviendo a colocar el (los) micrófono(s) a una mayor distancia de los altavoces.
  3 Bajando los niveles de volumen.
- Lea detenidamente el manual del usuario del micrófono que utilice y, en caso de no utilizar un micrófono condensador que requiere alimentación phantom, asegúrese de que apague la alimentación phantom (consulte el manual del usuario de la consola). Al suministrar alimentación phantom a un micrófono dinámico o un teclado, podría dañarlos.
- Active o desactive la alimentación phantom únicamente después de haber enmudecido los canales a los que los micrófonos de condensador estén conectado. Al activar / desactivar la alimentación phantom antes de haber enmudecido, podrá producirse un ruido estridente a alto volumen, y este ruido es capaz de causar importantes daños en los amplificadores, altavoces y otros aparatos.

1 Baje por completo el fader MASTER de la consola.

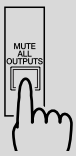
2 Seleccione el canal en que desee entrar el sonido y conecte el micrófono u instrumento al jack INPUT correspondiente.



Procesador (VM-7200)

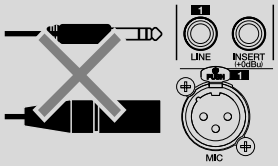
MEMO

Cuando la consola y el procesador están separados, mantenga pulsado **[MUTE ALL OUTPUTS]** en el procesador.



NOTE

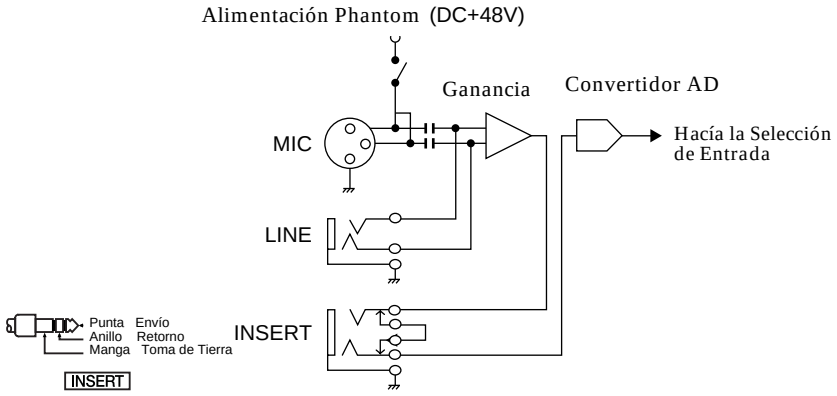
No conecte simultáneamente jacks a las entradas MIC y LINE para el mismo canal. Seleccione uno o el otro.



3 Suba el fader MASTER y el fader de canal apropiado.

■ Utilizar Efectos Externos (Insert)

Utilice los jacks **INSERT jacks** cuando desea utilizar una unidad de efectos externa (Insert) para procesar el sonido procedente de micrófonos u instrumentos que entra en los canales. Necesita un cable bifurcado para hacerlo.
A continuación se muestra el diagrama del flujo para el jack INSERT.

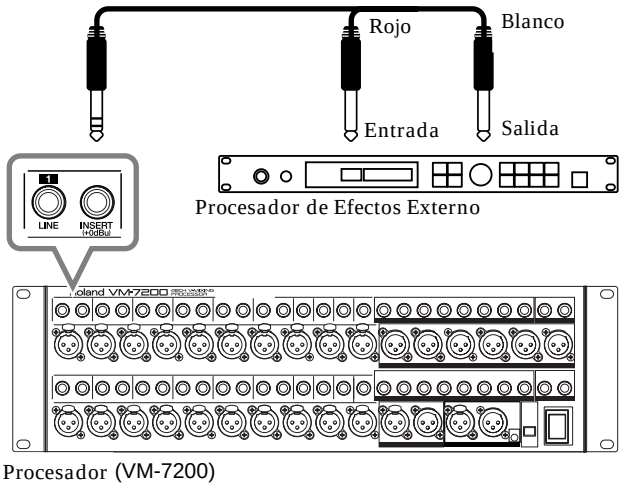


MEMO

Los Jack INSERT se utilizan con los Canales 1–6 (Canales 11–16). Además, los jacks MIC y LINE también pueden utilizarse para las conexiones.

1 Mute the channel that you want to process with effects (refer to the console Owner's Manual).

2 Connect the external effects device to the INSERT jack for the channel selected in Step 1.



3 Desactive el enmudecimiento del canal al que desee aplicar efectos, y suba el fader MASTER y el fader de canal apropiado.

Conectar Grabadoras MD, Reproductores de CD y otros Aparatos Digitales (Conexión Digital)

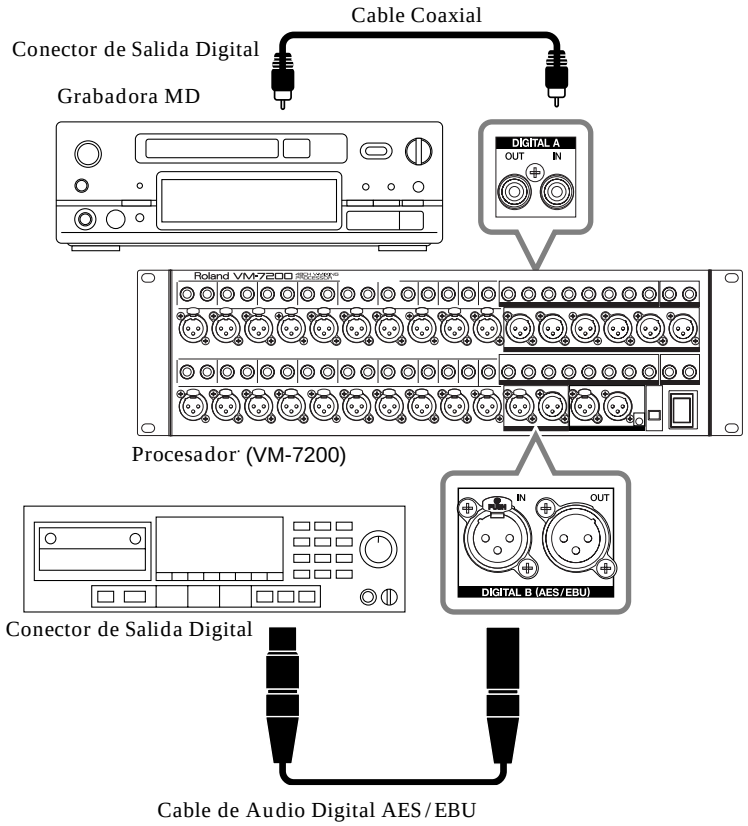
Si desea conectar el procesador a una grabadora de DAT, un reproductor doméstico de MD o de CD u otro aparato digital similar, utilice los **conectores DIGITAL**. Primero, obtenga un cable de conexión compatible con el aparato digital que utiliza. Las señales de audio digital que entran mediante los conectores DIGITAL se asignan a los Canales 21 / 22.

MEMO

Al conectar a aparatos digitales que disponen de conectores de tipo óptico, será necesario obtener un convertidor óptico / coaxial.

1 Enmudezca los Canales 21 / 22 (vea el Manual del usuario de la consola).

2 Conecte al conector de salida del aparato digital que utilice. Al conectar a aparatos digitales de gama profesional (con conectores XLR), conecte al **DIGITAL B IN**. Al conectar a una reproductora de MD o de CD para uso doméstico o similar (con conectores coaxilaes), conecte al **DIGITAL A IN**. **No obstante, no puede utilizar simultáneamente DIGITAL A IN y DIGITAL B IN.**

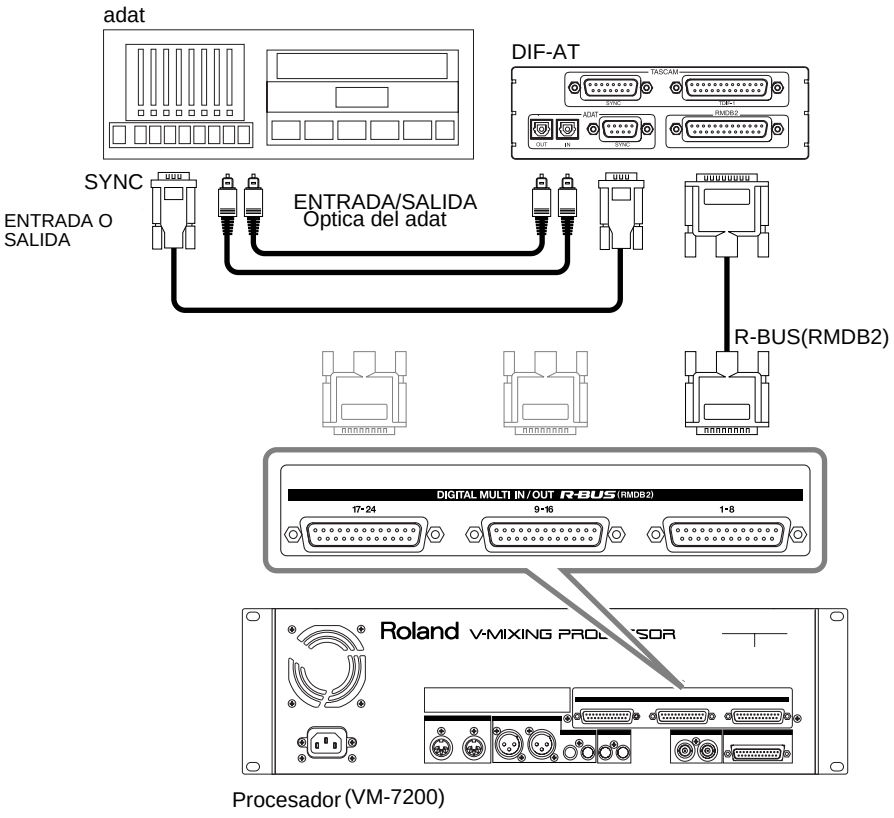


3 Desactive el enmudecimiento en los Canales 21 / 22 y suba el fader MASTER y los faders de los canales 21 y 22.

Conectar el DIF-AT de Roland (Conexión R-BUS (RMDB2)

Roland también comercializa la Placa de Ampliación I/O **VM-24E**, suministrada por separado. Si instala la VM-24E, puede añadir tres conectores R-BUS (RMDB2) (p. 14, 19). Conectando el DIF-AT de Roland, puede intercambiar 8 señales de audio digital de entrada/8 de salida de 24 bits con una grabadora multi-pistas como, por ejemplo la ALESIS adat o la TASCAM DA-88 (tres grabadoras máximo).

■ Conectar un adat de ALESSIS



Procesador (VM-7200)

1 Utilice el cable R-BUS incluido con el DIF-AT para conectar el DIF-AT al procesador.

2 Utilice un cable óptico (suministrado por separado) para conectar el adat y el DIF-AT. Realice los ajustes para la consola (maestra o esclava) en relación a las conexiones utilizadas. Vea los Manuales del Usuario de la consola y del DIF-AT.

3 Pulse el interruptor **POWER** del procesador (VM-7200, VM-7100) para encenderlo. Verifique que el indicador de POWER del DIF/AT esté iluminado.

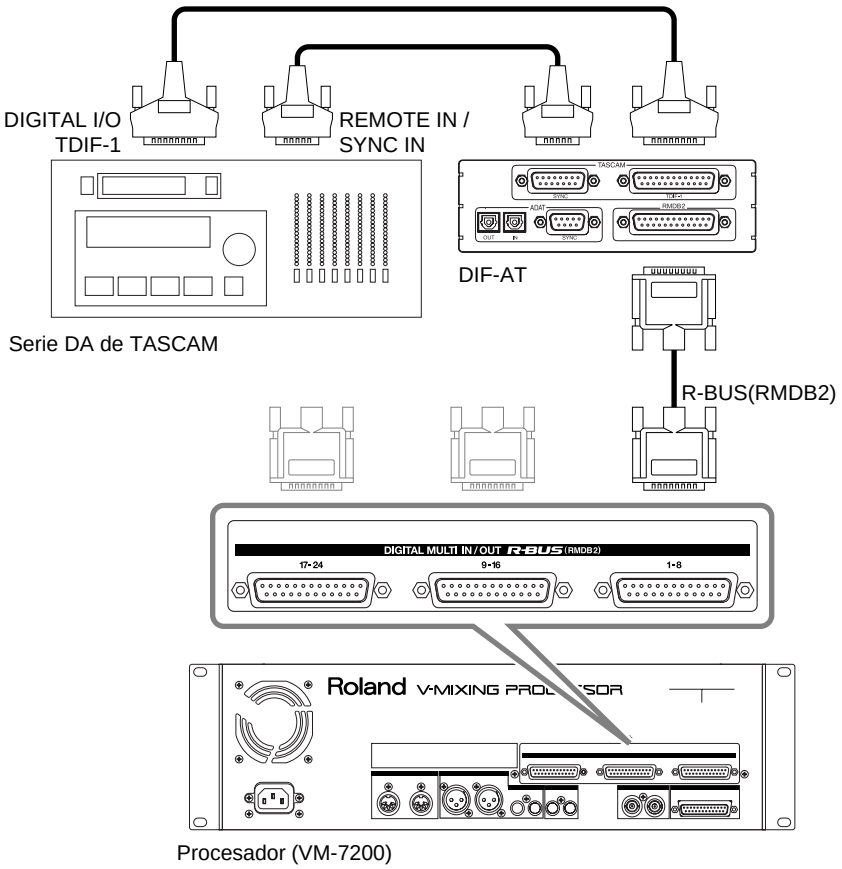
NOTE

Para evitar el mal funcionamiento de los altavoces u otros aparatos o y/o dañarlos, antes de efectuar cualquier conexión, baje el volumen al mínimo y apague todos los aparatos.

MEMO

Conexión al conector SYNC IN del adat con el adat en modo Sync Slave. Esta configuración permite accionar los controles de transporte desde la consola. Conexión al conector SYNC OUT del adat en con el adat en modo Master. En esta configuración, no puede accionar los controles de transporte desde la consola.

■ Conectar aparatos de la serie DA de TASCAM



Procesador (VM-7200)

1 Utilice el cable R-BUS suministrado con el DIF-AT para conectar el DIF-AT al procesador.

2 Utilice un cable especificado para el uso con aparatos TASCAM (suministrado por separado) para conectar el aparato de la serie DA de TASCAM al DIF-AT.

3 Pulse el interruptor **POWER** del procesador (VM-7200, VM-7100) para encenderlo. Verifique que el indicador de POWER del DIF / AT esté iluminado.

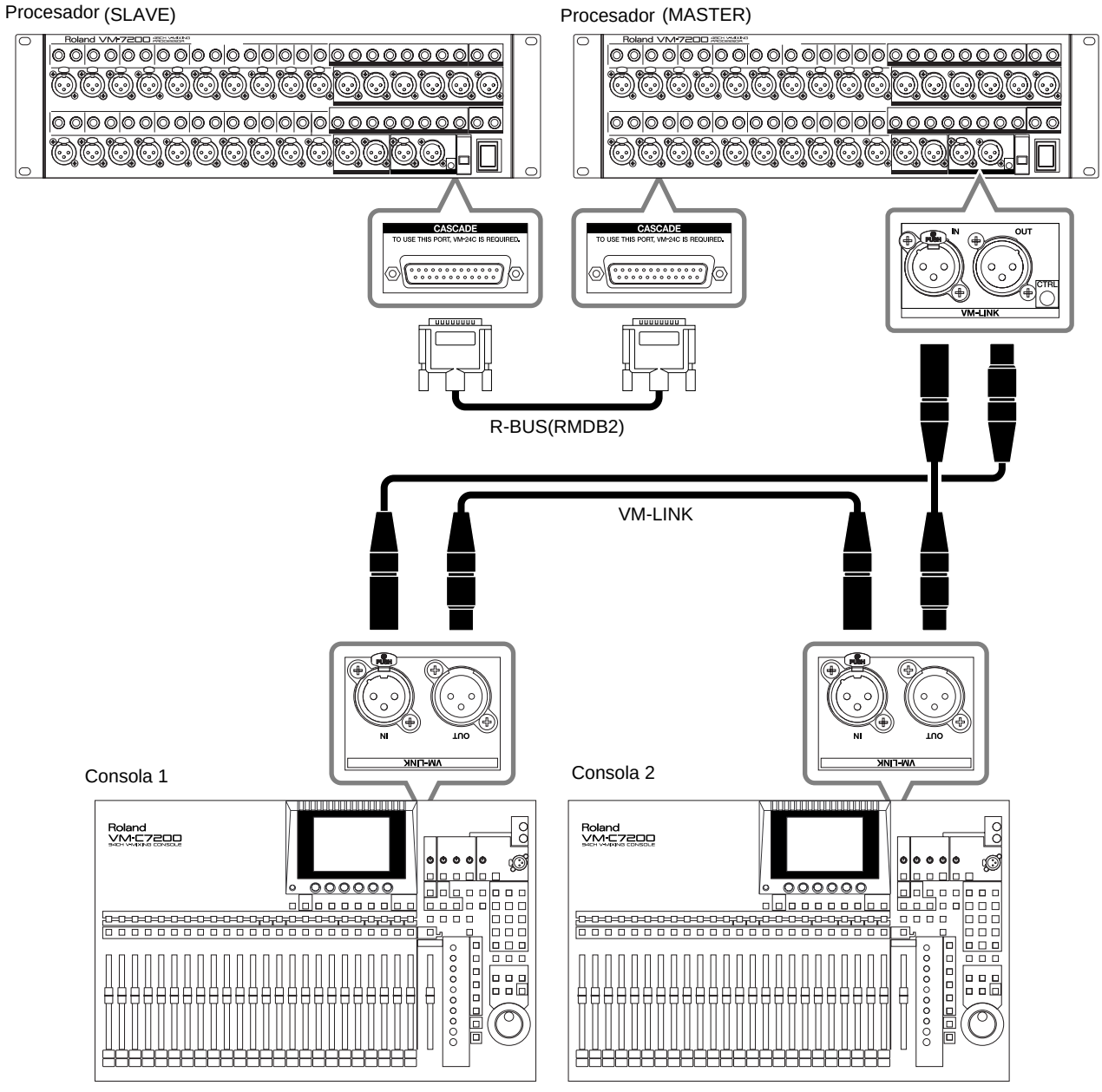
Conectar Dos Procesadores (Conexión en Cascade)

Roland también comercializa el Kit de Cascada **VM-24C**, suministrado por separado. Una vez instalado el VM-24C, podrá utilizar el conector CASCADE (p. 16, 21). Al conectar en cascada dos unidades de la serie VM-7000, podrá soportar un máximo de 94 canales de entrada (si utiliza la VM-24E y un DIF-AT). Roland recomienda que instale la VM-24C.

La VM-24C incluye dos placas, una **MASTER** y una **SLAVE (Maestra y Esclava)**. Instale la placa **MASTER** en uno de los procesadores y la placa **SLAVE** en el otro (p. 16, 21). **Los conectores CASCADE no pueden utilizarse si no ha instalado ambas placas.**

NOTE

Para evitar el mal funcionamiento de los altavoces u otros aparatos o y/o dañarlos, antes de efectuar cualquier conexión, baje el volumen al mínimo y apague todos los aparatos.



1 Utilice el cable R-BUS suministrado con la VM-24C para conectar los dos procesadores.

2 Utilice el cable VM-LINK suministrado con la consola para conectar el procesador maestro a las consolas. **Tenga cuidado de no conectar el cable VM-LINK al procesador esclavo.**

* *En el Manual del Usuario de la consola, el procesador maestro se llama la **1ª UNIDAD** y el procesador esclavo se llama la **2ª UNIDAD**.*

3 Ajuste el interruptor **POWER** de cada procesador en ON.

4 Ajuste el interruptor **POWER** de cada consola en ON.

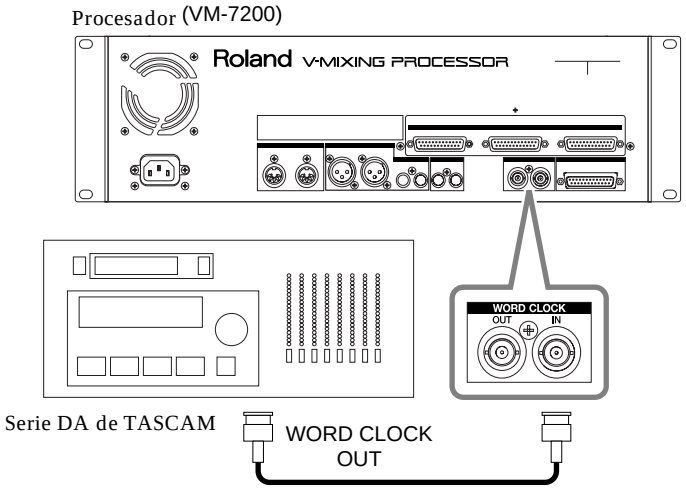
5 El procesador que en que haya instalado la placa **MASTER** se convierte en el maestro de la conexión en Cascada.

MEMO

El procesador que disponga de la placa SLAVE del kit de cascada VM-24C no funciona como unidad maestra en una configuración con un único procesador. Si lo desea, desmantélela. (p. 16, 21)

Conectar un Word Clock

En los casos en los que se conectan múltiples aparatos en un estudio de grabación con conexiones digitales, se precisa una señal estándar para la sincronización para que las señales de audio digital procedentes de cada aparato pueda intercambiarse correctamente. Esta señal de sincronización se denomina **word clock**. En general, se utiliza una grabadora multi-pistas o un generador de mensajes de word clock como maestro y el procesador de mezcla (VM-7200, VM-7100) u otro aparato digital como esclavo.



1 Utilice un cable para señales word clock para conectar el word clock maestro (en este ejemplo, una grabadora multi-pistas digital) y el procesador.

2 Ajuste el interruptor **POWER** de cada procesador en ON.

3 Ajuste el interruptor **POWER** de cada consola en ON

4 Ajuste el procesador de forma que funcione como word clock esclava (vea el Manual del Usuario de la consola para obtener instrucciones).

NOTE

Para evitar el mal funcionamiento de los altavoces u otros aparatos o de y / o dañarlos, antes de efectuar cualquier conexión, baje el volumen al mínimo y apague todos los aparatos.

MEMO

Ambos procesadores pueden funcionar como word clock maestro o word clock esclavo (vea el Manual del Usuario de la consola).

Si utiliza un DIF-AT de Roland conectado a las grabadoras adat de ALESIS o DA de TASCAM, no precisa una conexión de word clock (p. 30, 31).

Solucionar Pequeños Problemas

Si le parece que el VM-7200 o el VM-7100 no funciona correctamente, antes de aceptarlo como mal funcionamiento, compruebe los siguientes puntos. Si una vez comprobados estos puntos, encuentre que persista el problema, contacte con el Servicio Post-venta de Roland o con su distribuidor de productos Roland.

No produce sonido

- No se ha encendido el procesador, la consola u otro aparato conectado a estos.
- No se ha conectado correctamente el cable VM-LINK (p. 23).
- Un cable de audio no está conectado correctamente (p. 23).
- El nivel de volumen de un amplificador o de los altavoces está ajustado al mínimo.
- Ha bajado los faders de Canal o los faders Maestro.
- Los canales están enmudecidos (p. 25).
- Está utilizando un cable de alimentación que no es el original suministrado con la unidad.
  → Algunos cables de otros fabricantes, aunque similares al original, pueden hacer un mal contacto eléctrico, haciendo que la unidad funcione incorrectamente. Asegúrese de utilizar sólo el cable suministrado con cada aparato.
- El nivel de volumen del instrumento conectado al procesador es demasiado bajo.
  → ¿Es posible que el cable de conexión dispone de un resistor? Utilice cables de conexión sin resistores.
- Está utilizando a la vez otro aparato de elevado consumo de electricidad.
  → Otros aparatos pueden ocasionar una reducción dramática en el voltaje. Utilice una toma de corriente separada para cualquier aparato de elevado consumo de electricidad.

Un Canal Específico no Produce Sonido

- La sensibilidad de la entrada (ganancia del pre amplificador) es demasiado baja.
- Existe una discrepancia entre el canal asignado al fader de canal y el canal utilizado para ese sonido.
- Está utilizando la función Solo o Mute.

El Sonido presencia Ruido o se Distorsiona

- La sensibilidad de la entrada (ganancia del pre amplificador) no está ajustada correctamente.
  → Ajustar la sensibilidad de la entrada demasiado alto hace que el sonido se distorsiona; contrariamente, ajustarla demasiado bajo hace que el sonido sea muy ruidoso. Ajuste la sensibilidad de la entrada de forma que el medidor de nivel fluctúe entre una gama de -12 a 0 dB (vea el Manual del Usuario de la consola).
- Un aparato que produce ruido (como, por ejemplo, un ordenador o un monitor) está colocado cerca de un micrófono conectado a la unidad.
- Está utilizando el ecualizador.
  → Algunos ajustes del ecualizador pueden hacer que el sonido se distorsione. En este caso, vuelva a ajustar el ecualizador.
- La afinación de la grabación o la reproducción de la grabadora multi-pistas digital conectada a la unidad (como, por ejemplo, una adat de ALESIS o una DA de TASCAM) ha sido modificada (se ha utilizado la función Vari-Pitch).
  → La frecuencia máxima de muestreo de la serie VM-7000 es de 48 kHz. Por lo tanto, al subir la afinación con la función Vari-Pitch cuando el Master Clock del MTR digital ya corre a 48 kHz puede ocasionar que se produzca ruido. En este caso, utilice una conexión analógica para las señales de audio.

No se Aplican los Efectos

- La VS8F-2 no ha sido instalada en el procesador (p. 13, 18).
- Los niveles de los envíos de los efectos de canal han sido bajados (vea el Manual del Usuario de la consola).
- El efecto ya ha sido insertado en otro canal.
- Está intentando utilizar un algoritmo que no puede utilizarse en los efectos maestro.
- Está utilizando efectos externos.
  → Consulte el esquemático del jack INSERT, y vuelva a conectar correctamente el Send y el Return (p. 28).

Es imposible Realizar la Conexión en Cascada

- La VM-24C no ha sido instalada en ambos procesadores que están conectados (p. 16, 21).
- No está utilizando el cable R-BUS (RMDB2) suministrado con la VM-24C (p. 32).
  → Aunque similares de aspecto, los cables SCSI y los cables para aparatos TASCAM no son intercambiables. El uso de otros cables puede ocasionar daños en el equipo, asegúrese de utilizar el cable R-BUS (RMDB2).
- El maestro y el esclavo no están conectados correctamente (p. 32).
  → Los sonidos procedentes del procesador maestro no pueden salir del procesador esclavo. Utilice como maestro el procesador con la placa VM24-C MASTER instalada.

Es imposible Realizar la Conexión Digital MTR (adat de ALESIS, DA de TASCAM o similar)

- La VM-24E no ha sido instalada en el procesador (p. 14, 19).
- No está utilizando el cable R-BUS (RMDB2) suministrado con el DIF-AT (p. 30).
  → Aunque similares de aspecto, los cables SCSI y los cables para aparatos TASCAM no son intercambiables. El uso de otros cables puede ocasionar daños en el equipo, asegúrese de utilizar el cable R-BUS (RMDB2).

Model: VM-7100 / VM-7200, Version 1.00, Jun. 25 1999

1. Transmitted Data and Recognized Receive Data

■Channel Voice Message

●Polyphonic Key Pressure

Transmits the level meter value according to the value of “Level Meter Tx. via MIDI.”
When the spectrum analyzer was selected as the effect type, sends the level value at each frequency band area.
Ignored when received.

Status	Second	Third
AnH	mmH	llH

n = MIDI Channel No.: 0H - FH (ch.1 - ch.16)
mm = Note No.: 00H - 27H (0 - 39) (*1)
ll = Level Meter Value: 00H - 36H (0 - 54) (*2)

Level Meter and Note No.

Level Meter Target / Note Number	Input Level Meter Channel	MultiIn Level Meter Channel	FlexBus Level Meter Channel	MultiOut Level Meter Channel	Spectrum Analyzer Level Meter Channel	Effects Level Meter Channel
0	Input 1	MultiIn 1	BUS 1	Assign Out 1	Analyzer 20 Hz	FX1 Input Lch
1	Input 2	MultiIn 2	BUS 2	Assign Out 2	Analyzer 25 Hz	FX1 Input Rch
2	Input 3	MultiIn 3	BUS 3	Assign Out 3	Analyzer 31.5Hz	FX1 Output Lch
3	Input 4	MultiIn 4	BUS 4	Assign Out 4	Analyzer 40 Hz	FX1 Output Rch
4	Input 5	MultiIn 5	BUS 5	Assign Out 5	Analyzer 50 Hz	FX2 Input Lch
5	Input 6	MultiIn 6	BUS 6	Assign Out 6	Analyzer 63 Hz	FX2 Input Rch
6	Input 7	MultiIn 7	BUS 7	Assign Out 7	Analyzer 80 Hz	FX2 Output Lch
7	Input 8	MultiIn 8	BUS 8	Assign Out 8	Analyzer 100 Hz	FX2 Output Rch
8	Input 9	MultiIn 9	BUS 9	Assign Out 9	Analyzer 125 Hz	FX3 Input Lch
9	Input 10	MultiIn 10	BUS 10	Assign Out 10	Analyzer 160 Hz	FX3 Input Rch
10	Input 11	MultiIn 11	BUS 11	Assign Out 11	Analyzer 200 Hz	FX3 Output Lch
11	Input 12	MultiIn 12	BUS 12	Assign Out 12	Analyzer 250 Hz	FX3 Output Rch
12	Input 13	MultiIn 13	-	Assign Out 13	Analyzer 315 Hz	FX4 Input Lch
13	Input 14	MultiIn 14	-	Assign Out 14	Analyzer 400 Hz	FX4 Input Rch
14	Input 15	MultiIn 15	-	Assign Out 15	Analyzer 500 Hz	FX4 Output Lch
15	Input 16	MultiIn 16	-	Assign Out 16	Analyzer 630 Hz	FX4 Output Rch
16	Input 17	MultiIn 17	-	Assign Out 17	Analyzer 800 Hz	FX5 Input Lch
17	Input 18	MultiIn 18	-	Assign Out 18	Analyzer 1.0kHz	FX5 Input Rch
18	Input 19	MultiIn 19	-	Assign Out 19	Analyzer 1.2kHz	FX5 Output Lch
19	Input 20	MultiIn 20	-	Assign Out 20	Analyzer 1.6kHz	FX5 Output Rch
20	Input 21	MultiIn 21	-	Assign Out 21	Analyzer 2.0kHz	FX6 Input Lch
21	Input 22	MultiIn 22	-	Assign Out 22	Analyzer 2.5kHz	FX6 Input Rch
22	Input 23	MultiIn 23	-	Assign Out 23	Analyzer 3.2kHz	FX6 Output Lch
23	Input 24	MultiIn 24	-	Assign Out 24	Analyzer 4.0kHz	FX6 Output Rch
24	-	-	-	-	Analyzer 5.0kHz	FX7 Input Lch
25	-	-	-	-	Analyzer 6.3kHz	FX7 Input Rch
26	-	-	-	-	Analyzer 8.0kHz	FX7 Output Lch
27	-	-	-	-	Analyzer 10 kHz	FX7 Output Rch
28	-	-	-	-	Analyzer 12 kHz	FX8 Input Lch
29	-	-	-	-	Analyzer 16 kHz	FX8 Input Rch
30	-	-	-	-	Analyzer 20 kHz	FX8 Output Lch
31	-	-	-	-	Analyzer Input	FX8 Output Rch
32	MONITOR Lch	MONITOR Lch	MONITOR Lch	MONITOR Lch	MONITOR Lch	MONITOR Lch
33	MONITOR Rch	MONITOR Rch	MONITOR Rch	MONITOR Rch	MONITOR Rch	MONITOR Rch
34	MASTER Lch	MASTER Lch	MASTER Lch	MASTER Lch	MASTER Lch	MASTER Lch
35	MASTER Rch	MASTER Rch	MASTER Rch	MASTER Rch	MASTER Rch	MASTER Rch
36	-	-	-	-	-	MST FX Input Lch
37	-	-	-	-	-	MST FX Input Rch
38	-	-	-	-	-	MST FX Output Lch
39	-	-	-	-	-	MST FX Output Rch
40	-	-	-	-	-	-
41	-	-	-	-	-	-
42	-	-	-	-	-	-
43	-	-	-	-	-	-
44	-	-	-	-	-	-
45	-	-	-	-	-	-
46	-	-	-	-	-	-
47	-	-	-	-	-	-

Level Meter Value and Level

Level Meter / Spectrum Analyzer

Value	Level
0	0 dB
1	-1 dB
2	-2 dB
:	
127	-∞ dB

●Control Change

Parameters on the Mixer section can be received and transmitted by the control change messages when the VM-Link is connected and moreover “MIDI Control Type (*1)” in the SYSTEM parameter is set to “C.C.”
When the VM-Link is not connected and moreover the “MIDI Control Type (*1)” is set to “C.C.” or “NRPN,” the message can be received.

Status	Second	Third
BnH	mmH	llH

n = MIDI Channel No.: 0H - FH (ch.1 - ch.16; see below)
mm = Mixer Parameter No.: (see below)
ll = Mixer Parameter Value: 00H - 7FH (0 - 127) (*1)

When “MIDI C.C. Type (*1)” in the SYSTEM parameter is set to “Mono”

When “MIDI Control Type (*1)” in the SYSTEM parameter is set to “C.C.,” Level parameter / Switch parameter / Pan parameter of the MIXER parameter were transmitted and received according to the “MIDI Control Change Type Assign” and “MIDI Control Change Channel Assign” setting in the SYSTEM parameter.
The transmitted MIDI channel is set by the “MIDI Control Channel (*1)” in the VM-7200 / 7100.

Mixer Parameter and MIDI Channel/Control Change No. default value

<Channel Strip>

C.C.#	Control Parameter	C.C.#	Control Parameter
0	----------	64	Input 6 Main Sw
1	Input 1 Main Level	65	Input 7 Main Sw
2	Input 2 Main Level	66	Input 8 Main Sw
3	Input 3 Main Level	67	Input 9 Main Sw
4	Input 4 Main Level	68	Input 10 Main Sw
5	Input 5 Main Level	69	Input 11 Main Sw
6	Input 6 Main Level	70	Input 12 Main Sw
7	Input 7 Main Level	71	Input 13 Main Sw
8	Input 8 Main Level	72	Input 14 Main Sw
9	Input 9 Main Level	73	Input 15 Main Sw
10	Input 10 Main Level	74	Input 16 Main Sw
11	Input 11 Main Level	75	Input 17 Main Sw
12	Input 12 Main Level	76	Input 18 Main Sw
13	Input 13 Main Level	77	Input 19 Main Sw
14	Input 14 Main Level	78	Input 20 Main Sw
15	Input 15 Main Level	79	Input 21 Main Sw
16	Input 16 Main Level	80	Input 22 Main Sw
17	Input 17 Main Level	81	Input 23 Main Sw
18	Input 18 Main Level	82	Input 24 Main Sw
19	Input 19 Main Level	83	MultiIn 1 Main Sw
20	Input 20 Main Level	84	MultiIn 2 Main Sw
21	Input 21 Main Level	85	MultiIn 3 Main Sw
22	Input 22 Main Level	86	MultiIn 4 Main Sw
23	Input 23 Main Level	87	MultiIn 5 Main Sw
24	Input 24 Main Level	88	MultiIn 6 Main Sw
25	MultiIn 1 Main Level	89	MultiIn 7 Main Sw
26	MultiIn 2 Main Level	90	MultiIn 8 Main Sw
27	MultiIn 3 Main Level	91	MultiIn 9 Main Sw
28	MultiIn 4 Main Level	92	MultiIn 10 Main Sw
29	MultiIn 5 Main Level	93	MultiIn 11 Main Sw
30	MultiIn 6 Main Level	94	MultiIn 12 Main Sw
31	MultiIn 7 Main Level	95	MultiIn 13 Main Sw
32	----------	96	----------
33	MultiIn 8 Main Level	97	----------
34	MultiIn 9 Main Level	98	----------
35	MultiIn 10 Main Level	99	----------
36	MultiIn 11 Main Level	100	----------
37	MultiIn 12 Main Level	101	----------
38	MultiIn 13 Main Level	102	MultiIn 14 Main Sw
39	MultiIn 14 Main Level	103	MultiIn 15 Main Sw
40	MultiIn 15 Main Level	104	MultiIn 16 Main Sw
41	MultiIn 16 Main Level	105	MultiIn 17 Main Sw
42	MultiIn 17 Main Level	106	MultiIn 18 Main Sw
43	MultiIn 18 Main Level	107	MultiIn 19 Main Sw
44	MultiIn 19 Main Level	108	MultiIn 20 Main Sw
45	MultiIn 20 Main Level	109	MultiIn 21 Main Sw
46	MultiIn 21 Main Level	110	MultiIn 22 Main Sw
47	MultiIn 22 Main Level	111	MultiIn 23 Main Sw
48	MultiIn 23 Main Level	112	MultiIn 24 Main Sw
49	MultiIn 24 Main Level	113	
50	Bus 1 Master Level	114	
51	Bus 2 Master Level	115	
52	Bus 3 Master Level	116	
53	Bus 4 Master Level	117	
54	Bus 5 Master Level	118	
55	Bus 6 Master Level	119	
56	Bus 7 Master Level	120	----------
57	Bus 8 Master Level	121	----------
58	Main Master Level	122	----------
59	Input 1 Main Sw	123	----------
60	Input 2 Main Sw	124	----------
61	Input 3 Main Sw	125	----------
62	Input 4 Main Sw	126	----------
63	Input 5 Main Sw	127	----------

❍ When the "MIDI C.C. Type (*1)" in the SYSTEM parameter is set to "Multi"

When the "MIDI C.C. Type (*1)" is set to "Multi," the MIXER parameters in the VM-7200/7100 is transmitted and received through the multiple MIDI channels.
This function is used for controlling the Mixer section of the VM-7200/7100 or the GM sound module.

Mixer Parameter and MIDI Channel/Control Change No.

<Channel Strip>

Input	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIDI channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Master Fader Level	7	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Main Send Pan	10	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ L Freq.	12	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ L Gain	13	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ HM Freq.	14	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ HM Gain	15	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ HM Q	16	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ H Freq.	17	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ H Gain	18	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus1 Send Level	19	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus2 Send Level	20	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus3 Send Level	21	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus4 Send Level	22	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus5 Send Level	23	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus6 Send Level	24	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus7 Send Level	25	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus8 Send Level	26	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Input Mute Sw	27	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->

Input	17	18	19	20	21	22	23	24
MIDI channel	1	2	3	4	5	6	7	8
MIX Send Level	68	->	->	->	->	->	->	->
MIX Send Pan/Bal	70	->	->	->	->	->	->	->
EQ L Freq.	71	->	->	->	->	->	->	->
EQ L Gain	72	->	->	->	->	->	->	->
EQ HM Freq.	73	->	->	->	->	->	->	->
EQ HM Gain	74	->	->	->	->	->	->	->
EQ HM Q	75	->	->	->	->	->	->	->
EQ H Freq.	76	->	->	->	->	->	->	->
EQ H Gain	77	->	->	->	->	->	->	->
Bus1 Send Level	78	->	->	->	->	->	->	->
Bus2 Send Level	79	->	->	->	->	->	->	->
Bus3 Send Level	80	->	->	->	->	->	->	->
Bus4 Send Level	81	->	->	->	->	->	->	->
Bus5 Send Level	82	->	->	->	->	->	->	->
Bus6 Send Level	83	->	->	->	->	->	->	->
Bus7 Send Level	84	->	->	->	->	->	->	->
Bus8 Send Level	85	->	->	->	->	->	->	->
Input Mute Sw	86	->	->	->	->	->	->	->

MultiIn	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MIDI channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Main Send Level	39	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Main Send Pan	42	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ L Freq.	44	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ L Gain	45	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ HM Freq.	46	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ HM Gain	47	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ HM Q	48	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ H Freq.	49	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
EQ H Gain	50	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus1 Send Level	51	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus2 Send Level	52	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus3 Send Level	53	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus4 Send Level	54	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus5 Send Level	55	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus6 Send Level	56	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus7 Send Level	57	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
Bus8 Send Level	58	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->
MultiIn Mute Sw	59	->	->	->	->	->	->	->	->	->	->	->	->	->	->	->

MultiIn	17	18	19	20	21	22	23	24
MIDI channel	1	2	3	4	5	6	7	8
MIX Send Level	102	->	->	->	->	->	->	->
MIX Send Pan/Bal	103	->	->	->	->	->	->	->
EQ L Freq.	104	->	->	->	->	->	->	->
EQ L Gain	105	->	->	->	->	->	->	->
EQ HM Freq.	106	->	->	->	->	->	->	->
EQ HM Gain	107	->	->	->	->	->	->	->
EQ HM Q	108	->	->	->	->	->	->	->
EQ H Freq.	109	->	->	->	->	->	->	->
EQ H Gain	110	->	->	->	->	->	->	->
Bus1 Send Level	111	->	->	->	->	->	->	->
Bus2 Send Level	112	->	->	->	->	->	->	->
Bus3 Send Level	113	->	->	->	->	->	->	->
Bus4 Send Level	114	->	->	->	->	->	->	->
Bus5 Send Level	115	->	->	->	->	->	->	->
Bus6 Send Level	116	->	->	->	->	->	->	->
Bus7 Send Level	117	->	->	->	->	->	->	->
Bus8 Send Level	118	->	->	->	->	->	->	->
MultiIn Mute Sw	119	->	->	->	->	->	->	->

<Talk Back Section> MIDI channel = 9

Talk Back Level	68
Talk Back To Main	70
Talk Back To Bus1	78
Talk Back To Bus2	79
Talk Back To Bus3	80
Talk Back To Bus4	81
Talk Back To Bus5	82
Talk Back To Bus6	83
Talk Back To Bus7	84
Talk Back To Bus8	85
Talk Back Sw	86

<Slate Section> MIDI channel = 10

Slate Level	68
Slate To Main	70
Slate To Bus1	78
Slate To Bus2	79
Slate To Bus3	80
Slate To Bus4	81
Slate To Bus5	82
Slate To Bus6	83
Slate To Bus7	84
Slate To Bus8	85
Slate Sw	86

Bus Number	Bus1	Bus2	Bus3	Bus4	Bus5	Bus6	Bus7	Bus8
MIDI channel	12	13	14	15	12	13	14	15
Bus Master Level	68	->	->	->	102	->	->	->
Bus Return Pan	70	->	->	->	103	->	->	->

<Main Master Block> MIDI ch.=16

Main Master Level	68
Main Master Balance	70

NRPN (MSB/LSB)

Status	Second	Third
BnH	62H	llH
BnH	63H	mmH

n = MIDI Channel No.: 0H - FH (ch.1 - ch.16)
mm = upper byte of the parameter number to be assigned with NRPN: 00H - 7FH (0 - 127)
ll = lower byte of the parameter number to be assigned with NRPN: 00H - 7FH (0 - 127)

This message is received at the following case.

When the VM-Link is not connected and moreover the "MIDI Control Type (*1)" is set to "NRPN" and moreover the MIDI channel of this message is same as the "MIDI Control Channel (*1)."
After received this message, it is memorized as the "None Registered Parameter Number."
"None Registered Parameter Number" value is equal to the "Start Address" referred in "2. Address Map for Data Transfer" section."
The address value range of "None Registered Parameter Number" is "00 00 00 - 00 7F 7F."
See "2. Address Map for Data Transfer" section.

This message is transmitted at the following case.

When the VM-Link is connected and moreover the "MIDI Control Type (*1)" is set to "NRPN" and moreover a parameter is modified.

This message is transmitted with the MIDI channel set at the “MIDI Control Channel (*1).”
“None Registered Parameter Number” value is equal to the “Start Address” referred in “2. Address Map for Data Transfer” section.”
The address value range of “None Registered Parameter Number” is “00 00 00 - 00 7F 7F.”

(*1) See “2. Address Map for Data Transfer” section.

❍Data Entry (MSB/LSB)

Status	Second	Third
BnH	06H	mmH
BnH	26H	llH

n = MIDI Channel No.: 0H - FH (ch.1 - ch.16)
mm = upper byte corresponding to the parameter assigned with NRPN
ll = lower byte corresponding to the parameter assigned with NRPN

```
<Ex>      mmH llH = 40H 00H = -8192
                  = 7FH 7FH = -1
                  = 00H 00H = 0
                  = 3FH 7FH = +8191
```

This message is received at the following case.

When the “MIDI Control Type (*1)” parameter is set to “NRPN” and moreover the MIDI channel value with the message is same as the “MIDI Control Channel (*1).”
After this message is received, the parameter is modified referring to the “None Registered Parameter Number.”
When the “None Registered Parameter Number” is not set, this message was ineffective.
The setting value range of each parameter number is different.
See “2. Address Map for Data Transfer” section.

This message is transmitted at the following case.

When the VM-Link is not connected and moreover “MIDI Control Type (*1)” is set to “NRPN” and moreover the parameter is modified.
This message is transmitted with the MIDI channel set as “MIDI Control Channel (*1).”

(*1) See “2. Address Map for Data Transfer” section.

❍Data Increment

When the VM-Link is not connected and moreover the “MIDI Control Type (*1)” parameter is set to “NRPN” and moreover the MIDI channel value is same as the “MIDI Control Channel (*1)” value.
After this message was received, the parameter is increased referring to the “None Registered Parameter Number.”
The VM-7200 / 7100 doesn’t transmit this message.

Status	Second	Third
BnH	60H	00H

n = MIDI Channel No.: 0H - FH (ch.1 - ch.16)

Increment the effect parameter selected with NRPN.

(*1) See “2. Address Map for Data Transfer” section.

❍Data Decrement

When the VM-Link is not connected and moreover the “MIDI Control Type (*1)” parameter is set to “NRPN” and moreover the MIDI channel value is same as the “MIDI Control Channel (*1)” value.
After this message was received, the parameter is decreased referring to the “None Registered Parameter Number.”
The VM-7200 / 7100 doesn’t transmit this message.

Status	Second	Third
BnH	61H	00H

n = MIDI Channel No.: 0H - FH (ch.1 - ch.16)

Decrement the effect parameter selected with NRPN.

(*1) See “2. Address Map for Data Transfer” section.

●Pitch bend Change

Status	Second	Third
EnH	llH	mmH

n = MIDI Channel No.: 0H - FH (ch.1 - ch.16)
mm, ll = Pitch Bend Value: 00 00H – 40 00H – 7F 7FH (-8192 – 0 – +8191)

Set the pitch bend value of third byte to the parameter which is designated with the MIDI channel number and the pitch bend value of the second byte.

Parameters and Pitch bend Messages

Message	Parameter Contents and remarks	
E0H 00H mmH	Input Master Fader Level - CH 1	
:	:	(Cascade Master Unit)
:	:	
E0H 2FH mmH	MultiIn Master Fader Level - CH 24	
E0H 30H mmH	Main Master Level	
:	:	(Cascade Master Unit)
E0H 31H mmH	Input Main Send Pan - CH 1	
:	:	(Cascade Master Unit)
:	:	
E0H 60H mmH	MultiIn Main Send Pan - CH 24	
E0H 61H mmH	Main Master Balance	
:	:	(Cascade Master Unit)
E0H 62H mmH	Pre Amp Input Gain - CH1	
:	:	(Cascade Master Unit)
E0H 79H mmH	Pre Amp Input Gain - CH24	
E0H 7AH mmH	(Reserved)	
E1H 00H mmH	Input Bus 1 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E1H 2FH mmH	MultiIn Bus 1 Send Level - CH24	
E1H 30H mmH	Input Bus 2 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E1H 5FH mmH	MultiIn Bus 2 Send Level - CH24	
E1H 60H mmH	Input Bus 3 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E2H 0FH mmH	MultiIn Bus 3 Send Level - CH24	
E2H 10H mmH	Input Bus 4 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E2H 3FH mmH	MultiIn Bus 4 Send Level - CH24	
E2H 40H mmH	Input Bus 5 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E2H 6FH mmH	MultiIn Bus 5 Send Level - CH24	
E2H 70H mmH	Input Bus 6 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E3H 1FH mmH	MultiIn Bus 6 Send Level - CH24	
E3H 20H mmH	Input Bus 7 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E3H 4FH mmH	MultiIn Bus 7 Send Level - CH24	
E3H 50H mmH	Input Bus 8 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E3H 7FH mmH	MultiIn Bus 8 Send Level - CH24	
E4H 00H mmH	Input Bus 9 Send Level - CH1	
:	:	(Cascade Master Unit)
:	:	
E4H 2FH mmH	MultiIn Bus 9 Send Level - CH24	
E4H 30H mmH	Input Bus 10 Send Level - CH1	
:	:	(Cascade Master Unit)

```
      :                        :
  E4H 5FH mmH       MultiIn Bus 10 Send Level - CH24
-------------------------------------------------------------------------
  E4H 60H mmH       Input Bus 11 Send Level - CH1
      :                        :                    (Cascade Master Unit)
      :                        :
  E5H 0FH mmH       MultiIn Bus 11 Send Level - CH24
-------------------------------------------------------------------------
  E5H 10H mmH       Input Bus 12 Send Level - CH1
      :                        :                    (Cascade Master Unit)
      :                        :
  E5H 3FH mmH       MultiIn Bus 12 Send Level - CH24
-------------------------------------------------------------------------
  E5H 40H mmH       Bus Master Fader Level - BUS1
      :                        :                    (Cascade Master Unit)
  E5H 4BH mmH       Bus Master Fader Level - BUS12
-------------------------------------------------------------------------
  E5H 4CH mmH              (Reserved)
      :                        :
-------------------------------------------------------------------------
  E8H 00H mmH       Input Master Fader Level - CH 1
      :                        :                    (Cascade Slave Unit)
      :                        :
  E8H 2FH mmH       MultiIn Master Fader Level - CH 24
-------------------------------------------------------------------------
  E8H 30H mmH       Main Master Level
      :                        :                    (Cascade Slave Unit)
-------------------------------------------------------------------------
  E8H 31H mmH       Input Main Send Pan - CH 1
      :                        :                    (Cascade Slave Unit)
      :                        :
  E8H 60H mmH       MultiIn Main Send Pan - CH 24
-------------------------------------------------------------------------
  E8H 61H mmH       Main Master Balance
      :                        :                    (Cascade Slave Unit)
-------------------------------------------------------------------------
  E8H 62H mmH       Pre Amp Input Gain - CH1
      :                        :                    (Cascade Slave Unit)
  E8H 79H mmH       Pre Amp Input Gain - CH24
-------------------------------------------------------------------------
  E8H 7AH mmH              (Reserved)
-------------------------------------------------------------------------
  E9H 00H mmH       Input Bus 1 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  E9H 2FH mmH       MultiIn Bus 1 Send Level - CH24
-------------------------------------------------------------------------
  E9H 30H mmH       Input Bus 2 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  E9H 5FH mmH       MultiIn Bus 2 Send Level - CH24
-------------------------------------------------------------------------
  E9H 60H mmH       Input Bus 3 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EAH 0FH mmH       MultiIn Bus 3 Send Level - CH24
-------------------------------------------------------------------------
  EAH 10H mmH       Input Bus 4 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EAH 3FH mmH       MultiIn Bus 4 Send Level - CH24
-------------------------------------------------------------------------
  EAH 40H mmH       Input Bus 5 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EAH 6FH mmH       MultiIn Bus 5 Send Level - CH24
-------------------------------------------------------------------------
  EAH 70H mmH       Input Bus 6 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EBH 1FH mmH       MultiIn Bus 6 Send Level - CH24
-------------------------------------------------------------------------
  EBH 20H mmH       Input Bus 7 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EBH 4FH mmH       MultiIn Bus 7 Send Level - CH24
-------------------------------------------------------------------------
  EBH 50H mmH       Input Bus 8 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EBH 7FH mmH       MultiIn Bus 8 Send Level - CH24
-------------------------------------------------------------------------
  ECH 00H mmH       Input Bus 9 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  ECH 2FH mmH       MultiIn Bus 9 Send Level - CH24
-------------------------------------------------------------------------
  ECH 30H mmH       Input Bus 10 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  ECH 5FH mmH       MultiIn Bus 10 Send Level - CH24
-------------------------------------------------------------------------
  ECH 60H mmH       Input Bus 11 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EDH 0FH mmH       MultiIn Bus 11 Send Level - CH24
-------------------------------------------------------------------------
  EDH 10H mmH       Input Bus 12 Send Level - CH1
      :                        :                    (Cascade Slave Unit)
      :                        :
  EDH 3FH mmH       MultiIn Bus 12 Send Level - CH24
-------------------------------------------------------------------------
  EDH 40H mmH       Bus Master Fader Level - BUS1
      :                        :                    (Cascade Slave Unit)
  EDH 4BH mmH       Bus Master Fader Level - BUS12
-------------------------------------------------------------------------
  EDH 4CH mmH              (Reserved)
      :                        :
-------------------------------------------------------------------------
```

■System Exclusive Message

Status	Data Bytes	Status
F0H	iiH, ddH, ..., eeH	F7H

Byte	Description
F0H	Status of System Exclusive Message
iiH	Manufacturer ID 41H Roland's Manufacturer ID 7EH Universal Non Realtime Message 7FH Universal Realtime Message
ddH	Data : 00H - 7FH (0-127)
:	:
eeH	Data
F7H	EOX (End of System Exclusive Message)

The VM-7200/7100 can transfer and receive the internal parameters information using system exclusive messages, and also can be controlled by the external devices using system exclusive messages.
The VM-7200/7100 can transmit and receive the System Exclusive messages such as Universal System Exclusive messages, Data Request (RQ1) and Data set (DT1).

❍About Model ID

For Data Request (RQ1) and Data Set (DT1), the VM-7200/7100 uses 00H 1EH as a Model ID.

❍About Device ID

System Exclusive messages are not assigned to any particular MIDI channel.
Instead, they have their own special control parameter called device ID.
The Roland system exclusive messages use device IDs to specify multiple VM-7200/7100 units.
The VM-7200/7100 sends system exclusive messages using the value set at "MIDI System Exclusive Device ID (*1)," and receives the system exclusive messages whose device ID is same as its device ID and 7FH.

●Universal System Exclusive Message

❍INQUIRY MESSAGE

Identity Request

Status	Data Byte	Status
F0H	7EH, Dev, 06H, 01H	F7H

Byte	Description
F0H	Status of System Exclusive Message
7EH	Universal System Exclusive Message Non Realtime Header
Dev	Device ID (or 7FH)

06H General Information (sub ID #1)
01H Identify Request (sub ID #2)
F7H EOX (End of System Exclusive Message)

The message is used to request the particular information of the VM-7200/7100. If this message is received right after the power is on, Device ID of the received message is set to the Device ID of the VM-7200/7100.
If the first received message's Device ID is 7FH, the VM-7200/7100's Device ID is set to the 10H (cascade slave processor = 11H), default value.
The VM-7200/7100 does not transmit this message.
If the VM-7200/7100 received the message and the device ID of the received message is same as its device ID or 7FH, the VM-7200/7100 transmits the following Identity Reply message.

Status	Data Bytes	Status
F0H	7EH, Dev, 06H, 02H, 41H, 1EH, 01H, nnH, 00H, vvH, 00H, ssH, ssH	F7H

Byte	Description
F0H	Status of System Exclusive Message
7EH	Universal System Exclusive Message Non Realtime Header
Dev	Device ID
06H	General Information (sub ID #1)
02H	Identify Request (sub ID #2)
41H	Manufacturer ID (Roland)
1EH 01H	Device Family Code (VM-7200/7100)
nnH 00H	Device Family No. (VM-xxxxx)
	0:Reserved, 1:VM-7100, 2:VM-C7100, 3:VM-7200, 4:VM-C7200
vvH 00H	Option Available No.

```
0 0 x x - x x x x
    | |   | | | +— Effect Board A
    | |   | | +—— Effect Board B
    | |   | +——— Effect Board C
    | |   +———— R-BUS Board
    | +————————— Cascade Board
    +————————— 7100/7200
```

ssH ssH	Software Revision Level
F7H	EOX (End of System Exclusive Message)

MIDI Machine Control Commands

Status	Data Bytes	Status
F0H	7FH, Dev, 06H, aaH, ..., bbH	F7H

Byte	Description
F0H	Status of System Exclusive Message
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
aaH	Command
:	:
bbH	Command
F7H	EOX (End of System Exclusive Message)

(*) see “3. MIDI Machine Control” section

MIDI Machine Control Responses

Status	Data Bytes	Status
F0H	7FH, Dev, 07H, aaH, ..., bbH	F7H

Byte	Description
F0H	Status of System Exclusive Message
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID
07H	MMC Response Message
aaH	Response
:	:
bbH	Response
F7H	EOX (End of System Exclusive Message)

(*) see “3. MIDI Machine Control” section

●Data Transfer (RQ1, DT1)

❍Data Request (RQ1)

Status	Data Bytes	Status
F0H	41H, Dev, 00H, 1EH, 11H, aaH, bbH, ccH, ssH, ssH, Sum	F7H

Byte	Description
F0H	Status of System Exclusive Message
41H	Manufacturer ID (Roland)
Dev	Device ID
00H 1EH	Model ID (V-Mixer)
11H	Command ID (RQ1)
aaH	Address MSB
bbH	Address MID
ccH	Address LSB
ssH	Size MSB
ssH	Size MID
ssH	Size LSB
Sum	Check Sum
F7H	EOX (End of System Exclusive Message)

The message is used to request data to the VM-7200/7100.
The VM-7200/7100 does not transmit this message.
The VM-7200/7100 transmits the requested data using Data Set (DT1) under following condition when it received the message.

1 The requested address correspond to the specified parameter base address of the VM-7200/7100.
2 The requested size is over 1 byte.

❍Data Set (DT1)

Status	Data Bytes	Status
F0H	41H, Dev, 00H, 0EH, 12H, aaH, bbH, ccH, ddH, ..., eeH, Sum	F7H

Byte	Description
F0H	Status of System Exclusive Message
41H	Manufacturer ID (Roland)
Dev	Device ID
00H 1EH	Model ID (V-Mixer)
12H	Command ID (DT1)
aaH	Address MSB
bbH	Address MID
ccH	Address LSB
ddH	Data
:	:
eeH	Data
Sum	Check Sum
F7H	EOX (End of System Exclusive Message)

The message is received under the following condition.

If VM-Link is not connected, and the device ID on the message is same as that of the receive device, and the address on the message correspond to the specified parameter base address, the received data are stored from the specified parameter base address.
If the interval of received messages is shorter than 20 msec, the VM-7200/7100 can not work the receive message procedure correctly.

The message is transmitted under the following condition.

When the VM-7200/7100 transmit the data on the requested parameter after receiving the Data Request message (RQ1).
See “2. Data Transfer Address Map” for more details of the transfer parameters.

2. Data Transfer Address Map

The each address value is expressed as a 7bit hex number.

Address	MSB	MID	LSB
None Registered Parameter Number	0000 0000	0mmm mmmm	0lll llll
	00	MM	LL
Binary 7 Bit Hex	0aaa aaaa	0bbb bbbb	0ccc cccc
	AA	BB	CC

■MIDI Data - Mixer EQ Freq Table

Data	Freq(Hz)	Data	Freq(Hz)	Data	Freq(Hz)	Date	Freq(Hz)
00H	16.0	20H	100	40H	630	60H	4.00k
01H	17.0	21H	106	41H	670	61H	4.22k
02H	18.0	22H	112	42H	710	62H	4.50k
03H	19.0	23H	120	43H	750	63H	4.73k
04H	20.0	24H	125	44H	800	64H	5.00k
05H	21.0	25H	133	45H	840	65H	5.30k
06H	22.4	26H	140	46H	900	66H	5.60k
07H	23.7	27H	150	47H	944	67H	6.00k
08H	25.0	28H	160	48H	1.00k	68H	6.30k
09H	26.6	29H	170	49H	1.06k	69H	6.70k
0AH	28.0	2AH	180	4AH	1.12k	6AH	7.10k
0BH	30.0	2BH	190	4BH	1.20k	6BH	7.50k
0CH	31.5	2CH	200	4CH	1.25k	6CH	8.00k
0DH	33.5	2DH	210	4DH	1.33k	6DH	8.40k
0EH	35.5	2EH	224	4EH	1.40k	6EH	9.00k
0FH	37.6	2FH	237	4FH	1.50k	6FH	9.44k
10H	40.0	30H	250	50H	1.60k	70H	10.0k
11H	42.2	31H	266	51H	1.70k	71H	10.6k
12H	45.0	32H	280	52H	1.80k	72H	11.2k
13H	47.3	33H	300	53H	1.90k	73H	12.0k
14H	50.0	34H	315	54H	2.00k	74H	12.5k
15H	53.0	35H	335	55H	2.10k	75H	13.3k
16H	56.0	36H	355	56H	2.24k	76H	14.0k
17H	60.0	37H	376	57H	2.37k	77H	15.0k
18H	63.0	38H	400	58H	2.50k	78H	16.0k
19H	67.0	39H	422	59H	2.66k	79H	17.0k
1AH	71.0	3AH	450	5AH	2.80k	7AH	18.0k
1BH	75.0	3BH	473	5BH	3.00k	7BH	19.0k
1CH	80.0	3CH	500	5CH	3.15k	7CH	20.0k
1DH	84.0	3DH	530	5DH	3.35k	7DH	21.0k
1EH	90.0	3EH	560	5EH	3.55k	7EH	22.4k
1FH	94.4	3FH	600	5FH	3.76k	7FH	23.7k

■MIDI Data - Mixer EQ Quality Table

Data	Q	Data	Q	Data	Q
00H	0.355	10H	2.24	20H	14.0
01H	0.400	11H	2.50	21H	16.0
02H	0.450	12H	2.80		
03H	0.500	13H	3.15		
04H	0.560	14H	3.55		
05H	0.630	15H	4.00		
06H	0.710	16H	4.50		
07H	0.800	17H	5.00		
08H	0.900	18H	5.60		
09H	1.00	19H	6.30		
0AH	1.12	1AH	7.10		
0BH	1.25	1BH	8.00		
0CH	1.40	1CH	9.00		
0DH	1.60	1DH	10.0		
0EH	1.80	1EH	11.2		
0FH	2.00	1FH	12.5		

■MIDI Data - Mixer EQ Gain Table

Data	Gain
00H	-32.0dB
01H	-31.5dB
02H	-31.0dB
:	:
:	:
3EH	-1.0dB
3FH	-0.5dB
40H	0.0dB
41H	+0.5dB
42H	+1.0dB
:	:
:	:
7EH	+31.0dB
7FH	+31.5dB

HFD GAIN: 04H (-30.0 dB) – 40H (0.0 dB) – 4CH (+6.0 dB)
LFD GAIN: 04H (-30.0 dB) – 40H (0.0 dB) – 4CH (+6.0 dB)
EQ GAIN: 22H (-15.0 dB) – 40H (0.0 dB) – 5EH (+15.0 dB)

■MIDI Data - EXP/CMP Ratio Table

Data	RATIO	
00H	1:1.0	(OFF)
01H	1:1.1	
02H	1:1.2	
03H	1:1.4	
04H	1:1.6	
05H	1:1.8	
06H	1:2.0	
07H	1:2.5	
08H	1:3.1	
09H	1:4.0	
0AH	1:5.6	
0BH	1:8.0	
0CH	1:16	
0DH	1:INF	

■Parameter Address Block

<Model ID = 00H 1EH>

Start adrs	Block	
00 00 00	System Block	1-1
00 10 00	Mixer Block	1-2
:		
:		
:		
00 50 00	Effect Block	1-3
00 60 00	(Reserved)	
:	:	
7F 7F 7F		

●1-1. System Block

Offset adrs	Data	Contents and remarks
00 00 00	0aaaaaaa	Software Revision Level (*1)
00 00 01#	0bbbbbbb	
00 00 02	00 - 3F	Option Available (*1)
		0 0 x x - x x x x
		|| || || +— Effect Board A
		|| || +——— Effect Board B

		| | +———	Effect Board C
		| | +———	R-BUS Board
		| +———	Cascade Board
		+———	7100/7200
00 00 03	00 - 7F	Error Message (*3)	
00 00 04	00 - 02	Sampling Frequency	48,44.1,32kHz
00 00 05	00	(Reserved)	
00 00 06	00 - 06	Word Clock Source	Int,R-BUS1,,,3,Cascade,WordClkIn,DigIn
00 00 07	00 - 01	Word Clock Terminator Switch	Off,On
00 00 08	00 - 01	Digital Audio Input	Coaxial,XLR-bal
00 00 09	00 - 01	R-BUS I/F type -1 (*1)	Off,DIF-AT
00 00 0A	00 - 01	R-BUS I/F type -2 (*1)	Off,DIF-AT
00 00 0B	00 - 01	R-BUS I/F type -3 (*1)	Off,DIF-AT
00 00 0C	00 - 01	MIDI OUT/THRU Sw	Out,THRU
00 00 0D	00 - 01	MIDI Level Meter Tx Sw	Off,On
00 00 0E	00 - 0F	MIDI Level Meter Channel	1,,,16
00 00 0F	00 - 02	MIDI Control Type (*2)	Off,C.C.,NRPN
00 00 10	00 - 0F	MIDI Control Channel (*2)	1,,,16
00 00 11	00 - 01	MIDI C.C. Type	Off,Mono,Multi
00 00 12	00 - 1F	MIDI System Exclusive Device ID	1,,,32
00 00 13	00 - 03	MIDI Control Change Type Assign C.C.# -0	Off,Level,Sw,Pan
:	:	:	
00 01 12	00 - 03	MIDI Control Change Type Assign C.C.# -127	
00 01 13	00 - 39	MIDI Control Change Channel Assign C.C.# -0	Input1,,,24,MultiIn1,,,24,Bus1,,8,Master
:	:	:	
00 02 12	00 - 39	MIDI Control Change Channel Assign C.C.# -127	
00 02 13	00 - 3F	Meter Unit Select	Unit0,Unit1... 7F=Off
00 02 14	00 - 3F	MTC Unit Select	Unit0,Unit1... 7F=Off
00 02 15	00 - 02	Cascade Mode (*1)	Off,Master,Slave
00 02 16	00 - 01	Digital Audio Output - Channel Status Type	Type1, Type2-Form1
00 02 17	00 - 01	Digital Audio Copy Protect	Off, On
00 02 18	00	(Reserved)	
:		:	

(*1) These parameters are read only.
(*2) These parameters are set by only Exclusive message (DT1).
(*3) These parameters are read only. If errata are occurred, the VM-7200Â^7100 transmit the message.

●1-2. Mixer Block

Offset adrs	Mixer Sub Block	
00 00 00	Pre Amp Param. -1 (Ch 1)	2-1
00 00 02	Pre Amp Param. -2 (Ch 2)	
:	:	
00 00 2E	Pre Amp Param. -24 (Ch 24)	
00 00 30	Input Param. -1 (Ch 1)	2-2
00 01 20	Input Param. -2 (Ch 2)	
:	:	
00 14 40	Input Param. -24 (Ch 24)	
00 15 30	MultiIn Param. -1 (Ch 1)	2-3
00 16 20	MultiIn Param. -2 (Ch 2)	
:	:	
00 29 40	MultiIn Param. -24 (Ch 24)	
00 2A 30	Talk Back Param.	2-4
00 2B 10	Bus 1-12 Param. -1 (BUS 1)	2-5
00 2B 20	Bus 1-12 Param. -2 (BUS 2)	
:	:	
00 2C 40	Bus 1-12 Param. -12 (BUS 12)	
00 2C 50	Bus 1-8 Param. -1 (BUS 1)	2-6
00 2D 08	Bus 1-8 Param. -2 (BUS 2)	
:	:	
00 2F 58	Bus 1-8 Param. -8 (BUS 8)	
00 30 10	Output Param.	2-7
00 30 60	Solo Param.	2-8
00 31 20	Fader Group Master Param.	2-9
00 31 40	Effect Section Param. -1 (FX1)	2-10
00 31 4A	Effect Section Param. -2 (FX2)	
:	:	
00 32 06	Effect Section Param. -8 (FX8)	
00 32 30	Master Effect Section Param	2-11
00 32 40	Cascade Param.	2-12
00 32 60	Dither Param.	2-13
00 33 00	GEN/OSC Param.	2-14
00 33 20	Level Meter/Analyzer Param.	2-15
00 33 30	Misc. Param.	2-16
00 33 40	(Reserved)	
:	:	

❍2-1. Pre Amp Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 01	Pre Amp Phantom Power Sw	Off,On
00 00 01	00 - 44	Pre Amp Input Gain	+4dB(00) to -64dB(44)
00 00 02	00	(Reserved)	
:		:	

❍2-2. Input Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 01	Input Channel Link Sw	Off,On
00 00 01	00 - 17 (40 - 57)	Input Group Fader Assign	Ch1,,,Ch24 bit6 : 0:Off,1:On
00 00 02	00 - 17 (40 - 57)	Input Select	Ch1,,,Ch20, DigitalInL,DigitalInR,ConsoleInL,ConsoleInR bit6 : 0:Off,1:On

00 00 03	28 - 46	Input ATT (0dB:64[40H]) -24dB,,,+6dB
00 00 04	00 - 01	Input Phase Sw Norm,Inv
00 00 05	00 - 01	Input Phase Delay Sw Off,On
00 00 06 00 00 07#	0aaaaaaa 0bbbbbbb	Input Phase Delay Time (*4) 0,,,14400sample
00 00 08 00 00 09#	0aaaaaaa 0bbbbbbb	Input Feedback Delay Time (*4) 2,,,14400sample
00 00 0A	00 - 01	Input Feedback Delay Sw Off,On
00 00 0B	00 - 7F	Input Feedback Delay Fb Level 0,,,127
00 00 0C	00 - 01	Input Feedback Delay Fb Phase Norm,Inv
00 00 0D	00 - 7F	Input Feedback Delay Eff Level 0,,,127
00 00 0E	00 - 01	Input Feedback Delay Eff Phase Norm,Inv
00 00 0F	00 - 7F	Input Feedback Delay Dir Level 0,,,127
00 00 10	04 - 4C	Input Feedback Delay HFD Gain (*2) -30.0dB,,,+6.0dB
00 00 11	2C - 7C	Input Feedback Delay HFD Freq (*1) 200,,,20kHz
00 00 12	04 - 4C	Input Feedback Delay LFD Gain (*2) -30.0dB,,,+6.0dB
00 00 13	04 - 54	Input Feedback Delay LFD Freq (*1) 20,,,2kHz
00 00 14	00 - 01	Input HPF Sw Off,On
00 00 15	04 - 54	Input HPF Cut Off Freq (*1) 20,,,2kHz
00 00 16	00 - 01	Input EQ Sw Off,On
00 00 17	22 - 5E	Input EQ Hi Gain (*2) -15.0dB,,,+15.0dB
00 00 18	48 - 7C	Input EQ Hi Freq (*1) 1k,,,20kHz
00 00 19	22 - 5E	Input EQ HiMid Gain (*2) -15.0dB,,,+15.0dB
00 00 1A	38 - 7C	Input EQ HiMid Freq (*1) 400,,,20kHz
00 00 1B	00 - 21	Input EQ HiMid Q (*3) 0.355,,,16.0
00 00 1C	00 - 05	Input EQ LoMid Type Off,LPF,BPF,HPF, Notch,Peak
00 00 1D	22 - 5E	Input EQ LoMid Gain (*2) -15.0dB,,,+15.0dB
00 00 1E	04 - 6C	Input EQ LoMid Freq (*1) 20,,,8kHz
00 00 1F	00 - 21	Input EQ LoMid Q (*3) 0.355,,,16.0
00 00 20	00 - 7F	Input EQ LoMid Resonance 0,,,127
00 00 21	22 - 5E	Input EQ Lo Gain (*2) -15.0dB,,,+15.0dB
00 00 22	04 - 54	Input EQ Lo Freq (*1) 20,,,2kHz
00 00 23	00 - 01	Input Mute Sw Norm,Mute
00 00 24	00 - 7F	Input Master Fader Level 0,,,127
00 00 25	00 - 01	Input Main Send Sw Off,On
00 00 26	01 - 7F	Input Main Send Pan L63,,,R63
00 00 27	00 - 02 (40 - 42)	Input Cue Send Sw PreEQ,PreFader,PostFader bit6 : 0:Off,1:On
00 00 28	00 - 7F	Input Cue Send Level 0,,,127
00 00 29	01 - 7F	Input Cue Send Pan L63,,,R63
00 00 2A	00 - 01	Input Cue Send Pan Slave Off,On
00 00 2B : : : 00 00 36	00 - 02 (40 - 42) 00 - 02 (40 - 42)	Input Bus 1 Send Sw PreEQ,PreFader,PostFader bit6 : 0:Off,1:On Input Bus 12 Send Sw PreEQ,PreFader,PostFader bit6 : 0:Off,1:On
00 00 37 : : : 00 00 42	00 - 7F	Input Bus 1 Send Level 0,,,127 Input Bus 12 Send Level
00 00 43 : : : 00 00 4E	01 - 7F	Input Bus 1 Send Pan L63,,,R63 Input Bus 12 Send Pan
00 00 4F : : : 00 00 5A	00 - 01	Input Bus 1 Send Pan Slave Off,On Input Bus 12 Send Pan Slave
00 00 5B	00 - 02 (40 - 42)	Patch Bay Send Sw PreEQ,PreFader,PostFader bit6 : 0:Off,1:On
00 00 5C :	00	(Reserved) :

(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*2) See “MIDI Data - Mixer EQ Gain Table.”
(*3) See “MIDI Data - Mixer EQ Quality Table.”
(*4) (Phase Delay Time) + (Feedback Delay Time) should be15000 or less.

❍2-3. MultiIn Parameter

Offset adrs	Data	Contents and remarks
00 00 00	00 - 01	MultiIn Channel Link Sw Off,On
00 00 01	00 - 17 (40 - 57)	MultiIn Group Fader Assign Ch1,,,Ch24 bit6 : 0:Off,1:On
00 00 02	00 - 17 (40 - 57)	MultiIn Select Tr1,,,Tr24 bit6 : 0:Off,1:On
00 00 03	28 - 46	MultiIn ATT (0dB:64[40H]) -24dB,,,+6dB
00 00 04	00 - 01	MultiIn Phase Sw Norm,Inv
00 00 05	00 - 01	MultiIn Phase Delay Sw Off,On
00 00 06 00 00 07#	0aaaaaaa 0bbbbbbb	MultiIn Phase Delay Time (*4) 0,,,14400sample
00 00 08 00 00 09#	0aaaaaaa 0bbbbbbb	MultiIn Feedback Delay Time (*4) 2,,,14400sample
00 00 0A	00 - 01	MultiIn Feedback Delay Sw Off,On
00 00 0B	00 - 7F	MultiIn Feedback Delay Fb Level 0,,,127
00 00 0C	00 - 01	MultiIn Feedback Delay Fb Phase Norm,Inv
00 00 0D	00 - 7F	MultiIn Feedback Delay Eff Level 0,,,127
00 00 0E	00 - 01	MultiIn Feedback Delay Eff Phase Norm,Inv
00 00 0F	00 - 7F	MultiIn Feedback Delay Dir Level 0,,,127
00 00 10	04 - 4C	MultiIn Feedback Delay HFD Gain (*2) -30.0dB,,,+6.0dB
00 00 11	2C - 7C	MultiIn Feedback Delay HFD Freq (*1) 200,,,20kHz
00 00 12	04 - 4C	MultiIn Feedback Delay LFD Gain (*2) -30.0dB,,,+6.0dB

00 00 13	04 - 54	MultiIn Feedback Delay LFD Freq (*1)	20,,,2kHz
00 00 14	00 - 01	MultiIn HPF Sw	Off,On
00 00 15	04 - 54	MultiIn HPF Cut Off Freq (*1)	20,,,2kHz
00 00 16	00 - 01	MultiIn EQ Sw	Off,On
00 00 17	22 - 5E	MultiIn EQ Hi Gain (*2)	-15.0dB,,,+15.0dB
00 00 18	48 - 7C	MultiIn EQ Hi Freq (*1)	1k,,,20kHz
00 00 19	22 - 5E	MultiIn EQ HiMid Gain (*2)	-15.0dB,,,+15.0dB
00 00 1A	38 - 7C	MultiIn EQ HiMid Freq (*1)	400,,,20kHz
00 00 1B	00 - 21	MultiIn EQ HiMid Q (*3)	0.355,,,16.0
00 00 1C	00 - 05	MultiIn EQ LoMid Type	Off,LPF,BPF,HPF, Notch,Peak
00 00 1D	22 - 5E	MultiIn EQ LoMid Gain (*2)	-15.0dB,,,+15.0dB
00 00 1E	04 - 6C	MultiIn EQ LoMid Freq (*1)	20,,,8kHz
00 00 1F	00 - 21	MultiIn EQ LoMid Q (*3)	0.355,,,16.0
00 00 20	00 - 7F	MultiIn EQ LoMid Resonance	0,,,127
00 00 21	22 - 5E	MultiIn EQ Lo Gain (*2)	-15.0dB,,,+15.0dB
00 00 22	04 - 54	MultiIn EQ Lo Freq (*1)	20,,,2kHz
00 00 23	00 - 01	MultiIn Mute Sw	Norm,Mute
00 00 24	00 - 7F	MultiIn Master Fader Level	0,,,127
00 00 25	00 - 01	MultiIn Main Send Sw	Off,On
00 00 26	01 - 7F	MultiIn Main Send Pan	L63,,,R63
00 00 27	00 - 02 (40 - 42)	MultiIn Cue Send Sw	PreEQ,PreFader,PostFader bit6 : 0:Off,1:On
00 00 28	00 - 7F	MultiIn Cue Send Level	0,,,127
00 00 29	01 - 7F	MultiIn Cue Send Pan	L63,,,R63
00 00 2A	00 - 01	MultiIn Cue Send Pan Slave	Off,On
00 00 2B	00 - 02 (40 - 42)	MultiIn Bus 1 Send Sw	PreEQ,PreFader,PostFader bit6 : 0:Off,1:On
:	:	:	
00 00 36	00 - 02 (40 - 42)	MultiIn Bus 12 Send Sw	PreEQ,PreFader,PostFader bit6 : 0:Off,1:On
00 00 37	00 - 7F	MultiIn Bus 1 Send Level	0,,,127
:	:	:	
00 00 42	00 - 7F	MultiIn Bus 12 Send Level	
00 00 43	01 - 7F	MultiIn Bus 1 Send Pan	L63,,,R63
:	:	:	
00 00 4E	01 - 7F	MultiIn Bus 12 Send Pan	
00 00 4F	00 - 01	MultiIn Bus 1 Send Pan Slave	Off,On
:	:	:	
00 00 5A	00 - 01	MultiIn Bus 12 Send Pan Slave	
00 00 5B	00	(Reserved)	
:		:	

(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*2) See “MIDI Data - Mixer EQ Gain Table.”
(*3) See “MIDI Data - Mixer EQ Quality Table.”
(*4) (Phase Delay Time) + (Feedback Delay Time) should be 15000 or less.

❍2-4. Talk Back Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 01	(Reserved)	
00 00 01	00 - 01	Talk Back Function Select	Talkback,Slate
00 00 02	00 - 7F	Talk Back Level	0,,,127
00 00 03	00 - 01	Talk Back To Main	Off,On
00 00 04	00 - 01	Talk Back To Cue	Off,On
00 00 05	00 - 01	Talk Back To Bus 1	Off,On
:	:	:	
00 00 10	00 - 01	Talk Back To Bus 12	
00 00 11	00 - 01	Talk Back To Multi 1	Off,On
:	:	:	
00 00 28	00 - 01	Talk Back To Multi 24	
00 00 29	00 - 7F	Slate Level	0,,,127
00 00 2A	00 - 01	Slate To Main	Off,On
00 00 2B	00 - 01	Slate To Cue	Off,On
00 00 2C	00 - 01	Slate To Bus 1	Off,On
:	:	:	
00 00 37	00 - 01	Slate To Bus 12	
00 00 38	00 - 01	Slate To Multi 1	Off,On
:	:	:	
00 00 4F	00 - 01	Slate To Multi 24	
00 00 50	00	(Reserved)	
:		:	

❍2-5. BUS 1–12 Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 01	Bus Link Sw	Off,On
00 00 01	00 - 17 (40 - 57)	Bus Group Fader Assign	Ch1,,,Ch24 bit6 : 0:Off,1:On
00 00 02	00 - 01	Bus Mode (*1)	Int,Ext
00 00 03	28 - 40	Bus ATT	-24dB,,,0dB
00 00 04	00 - 01	Bus Mute Sw	Norm,Mute
00 00 05	00 - 7F	Bus Master Fader Level	0,,,127
00 00 06	01 - 7F	Bus Master Fader Balance	L63,,,R63
00 00 07	00 - 01	Bus Main Send Sw	Off,On
00 00 08	01 - 7F	Bus Main Send Pan	L63,,,R63
00 00 09	00 - 01	Bus Cue Send Sw	Off,On
00 00 0A	00 - 7F	Bus Cue Send Level	0,,,127
00 00 0B	01 - 7F	Bus Cue Send Pan	L63,,,R63
00 00 0C	00 - 01	Bus Cue Send Pan Slave	Off,On
00 00 0D	00	(Reserved)	
:		:	

(*1) Settings to the buses 9–12 are invalid.

(*1) If you set it to “Int,” no audio is output from the Flex Bus Out. Even if you select “MultiOut / Assignable Out” for the Flex Bus Out, which is set to “Int.”

❍2-6. BUS 1-8 Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 01	Bus to Bus 1 Send Sw	Off,On
:	:	:	
00 00 0B	00 - 01	Bus to Bus 12 Send Sw	
00 00 0C	00 - 7F	Bus to Bus 1 Send Level	0,,,127
:	:	:	
00 00 17	00 - 7F	Bus to Bus 12 Send Level	
00 00 18	01 - 7F	Bus to Bus 1 Send Pan	L63,,,R63
:	:	:	
00 00 23	01 - 7F	Bus to Bus 12 Send Pan	
00 00 24	00 - 01	Bus to Bus 1 Send Pan Slave	Off,On
:	:	:	
00 00 2F	00 - 01	Bus to Bus 12 Send Pan Slave	
00 00 30	00	(Reserved)	
:		:	

❍2-7. Output Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00	(Reserved)	
00 00 01	00	(Reserved)	
00 00 02	00	(Reserved)	
00 00 03	00 - 7F	Control Room Master Level	0,,,127
00 00 04	01 - 7F	Control Room Master Balance	L63,,,R63
00 00 05	00 - 25 |(40 - 65)|	Control Room Source CH1,,,24,Bus1,,,12,Main,Cue	bit6 : 0:Off,1:On
00 00 06	00 - 01	Control Room Mono Sw	Off,On
00 00 07	00 - 01	Control Room Dim Sw	Off,On
00 00 08	00 - 7F	Control Room Dim Level	0,,,127
00 00 09	28 - 40	Main Bus ATT	-24dB,,,0dB
00 00 0A	00 - 01	Main Master Mute	Norm,Mute
00 00 0B	00 - 7F	Main Master Level	0,,,127
00 00 0C	01 - 7F	Main Master Balance	L63,,,R63
00 00 0D	28 - 40	Cue Bus ATT	-24dB,,,0dB
00 00 0E	00 - 01	Cue Master Mute	Norm,Mute
00 00 0F	00 - 7F	Cue Master Level	0,,,127
00 00 10	01 - 7F	Cue Master Balance	L63,,,R63
00 00 11	00 - 7F	Multi Output Level 1	0,,,127
:	:	:	
00 00 28	00 - 7F	Multi Output Level 24	
00 00 29	00 - 29 |(40 - 69)|	Multi Output Assign 1 CH1,,,24,Bus1,,,12 MainL,MainR,CueL,CueR,MonL,MonR	bit6 : 0:Off,1:On
:	:	:	
00 00 40	00 - 29 |(40 - 69)|	Multi Output Assign 24	bit6 : 0:Off,1:On
00 00 41	00 - 01	All Mute Switch	Norm,Mute
00 00 42	00 - 01	Monitor Out Line Switch	Off,On
00 00 43	00	(Reserved)	
:		:	

❍2-8. Solo Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 7F	Solo Level	0,,,127
00 00 01	00 - 03	Solo Sw Source	PreEQ,PFL,AFL,INPLACE
00 00 02	00 - 01	Solo Sw	Off,On
00 00 03	00 - 01	Solo Sw Input Channel -1	Off,On
:	:	:	
00 00 1A	00 - 01	Solo Sw Input Channel -24	
00 00 1B	00 - 01	Solo Sw MultiIn Channel -1	Off,On
:	:	:	
00 00 32	00 - 01	Solo Sw MultiIn Channel -24	
00 00 33	00 - 01	Solo Sw Bus -1 (*1)	Off,On
:	:	:	
00 00 3E	00 - 01	Solo Sw Bus -12 (*1)	
00 00 3F	00	(Reserved)	
:		:	

(*1) When the Bus Mode 1-8 of “2-5.Bus 1-12 Parameter” is set to “Ext,” Solo bus 1-8 is invalid if the Solo Switch Source is not set to “INPLACE.”

❍2-9. Fader Group Master Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 7F	Fader Group Master -1	0,,,127
:	:	:	
00 00 17	00 - 7F	Fader Group Master -24	
00 00 18	00	(Reserved)	
:		:	

❍2-10. Effect Section Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 00	(Reserved)	
00 00 01	00 - 7F	FX Lch Send Level	0,,,127
00 00 02	00 - 7F	FX Lch Return Level	0,,,127
00 00 03	00 - 09	FX Lch Insert Location (MSB) Input PreEQ, Input PostEQ, MultiIn PreEQ, MultiIn PostEQ, SndRtn, IntBus, ExtBus, Main, Mon	Off,
00 00 04#	00 - 17	FX Lch Insert Location (LSB) (Bus1-12, Lch, Rch)	Ch1--Ch24,
00 00 05	00 - 7F	FX Rch Send Level	0,,,127
00 00 06	00 - 7F	FX Rch Return Level	0,,,127
00 00 07	00 - 09	FX Rch Insert Location (MSB) Input PreEQ, Input PostEQ, MultiIn PreEQ, MultiIn PostEQ, SndRtn, IntBus, ExtBus, Main, Mon	Off,

00 00 08#	00 - 17	FX Rch Insert Location (LSB) Ch1--ch24
		(Bus1-12, Lch, Rch)
00 00 09	00	(Reserved)
:	:	

Limitation condition of insert location is difference depending on the FX number and the Effect Board Select of "2-16.Misc. Parameter." Please assign the effective MSB and LSB as follows.
It is impossible to insert more than two FX to the same insert location. Please check if the insert location you wish to set is not used for other FX.
If you select SndRtn for MSB, it is automatically set to the bus of the same FX number, no matter how the LSB is set. Please set both the L and R channels of MSB with the same FX number to SndRtn.

* When you use the spectrum analyzer (when you use the algorithm 34:FFT on FX1, 3, 5 or 7)., it is impossible to use FX1 L ch as the channel insert (Input PreEQ, Input PostEQ, MultiIn PreEQ or MultiIn Post EQ).

[FX1, FX2]

Location MSB	(val)	Location LSB	(val)
Off	(0)	----	(---)
*Input PreEQ	(1)	Ch1--Ch24	(0-23)
*Input PostEQ	(2)	Ch1--Ch24	(0-23)
*MultiIn PreEQ	(3)	Ch1--Ch24	(0-23)
*MultiIn PostEQ	(4)	Ch1--Ch24	(0-23)
SndRtn	(5)	----	(---)
IntBus	(6)	Bus1, Bus2	(0-1)
ExtBus	(7)	Bus1--Bus12	(0-11)
Main	(8)	Lch, Rch	(0-1)
Mon	(9)	Lch, Rch	(0-1)

[FX3, FX4]

< Effect Board A Select : Input >

Location MSB	(val)	Location LSB	(val)
Off	(0)	----	(---)
Input PreEQ	(1)	Ch1--Ch4, Ch13--Ch16	(0-3, 12-15)
Input PostEQ	(2)	Ch1--Ch4, Ch13--Ch16	(0-3, 12-15)
SndRtn	(5)	----	(---)
IntBus	(6)	Bus3, Bus4	(2,3)

< Effect Board A Select : MultiIn >

Location MSB	(val)	Location LSB	(val)
Off	(0)	---	(---)
MultiIn PreEQ	(3)	Ch1--Ch4, Ch13--Ch16	(0-3, 12-15)
MultiIn PostEQ	(4)	Ch1--Ch4, Ch13--Ch16	(0-3, 12-15)

[FX5, FX6]

< Effect Board B Select : Input >

Location MSB	(val)	Location LSB	(val)
Off	(0)	---	(---)
Input PreEQ	(1)	Ch5--Ch8, Ch17--Ch20	(4-7, 16-19)
Input PostEQ	(2)	Ch5--Ch8, Ch17--Ch20	(4-7, 16-19)
SndRtn	(5)	---	(---)
IntBus	(6)	Bus5, Bus6	(4,5)

< Effect Board B Select : MultiIn >

Location MSB	(val)	Location LSB	(val)
Off	(0)	---	(---)
MultiIn PreEQ	(3)	Ch5--Ch8, Ch17--Ch20	(4-7, 16-19)
MultiIn PostEQ	(4)	Ch5--Ch8, Ch17--Ch20	(4-7, 16-19)

[FX7, FX8]

< Effect Board C Select : Input >

Location MSB	(val)	Location LSB	(val)
Off	(0)	---	(---)
Input PreEQ	(1)	Ch9--Ch12, Ch21--Ch24	(8-11, 20-23)
Input PostEQ	(2)	Ch9--Ch12, Ch21--Ch24	(8-11, 20-23)
SndRtn	(5)	---	(---)
IntBus	(6)	Bus7, Bus8	(6,7)

< Effect Board C Select : MultiIn >

Location MSB	(val)	Location LSB	(val)
Off	(0)	---	(---)
MultiIn PreEQ	(3)	Ch9--Ch12, Ch21--Ch24	(8-11, 20-23)
MultiIn PostEQ	(4)	Ch9--Ch12, Ch21--Ch24	(8-11, 20-23)

❍2-11. Master Effect Section Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 7F	Master FX Send Level	0,,,127
00 00 01	00 - 7F	Master FX Return Level	0,,,127
00 00 02	00 - 02	Master FX Insert Location	Off, Main, Mon
00 00 03	00	(Reserved)	
:		:	

❍2-12. Cascade Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 01	Cascade Sw Bus 1	Off,On
:	:	:	
00 00 0B	00 - 01	Cascade Sw Bus 12	
00 00 0C	00 - 01	Cascade Sw Cue	Off,On
00 00 0D	00 - 01	Cascade Sw Main	Off,On
00 00 0E	28 - 40	Cascade ATT Bus 1	-24dB,,,0dB
:	:	:	
00 00 19	28 - 40	Cascade ATT Bus 12	
00 00 1A	28 - 40	Cascade ATT Cue	-24dB,,,0dB
00 00 1B	28 - 40	Cascade ATT Main	-24dB,,,0dB
00 00 1C	00	(Reserved)	
:		:	

❍2-13. Dither Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 09	Dither Sw MultiOut 1	Off,
:	:	:	16,17,18,19,20,21,22,23,24
00 00 17	00 - 09	Dither Sw MultiOut 24	
00 00 18	00	(Reserved)	
:		:	

❍2-14. GEN/OSC Parameter

Offset adrs	Data	Contents and remarks	
00 00 00	00 - 01	Gen/Osc Sw	Off,On
00 00 01	00 - 7F	Gen/Osc Level	0,,,127
00 00 02	00 - 02	Gen/Osc Waveform	
		Pink Noise, White Noise, Sin Wave	
00 00 03	0aaaaaaa	Gen/Osc Frequency	20.0Hz,,,20.0000kHz
00 00 04#	0bbbbbbb		(200-200000)
00 00 05#	0ccccccc		(200-200000)
00 00 06#	0ddddddd		(200-200000)
00 00 07	00 - 01	Gen/Osc Send Bus 1	Off,On
:	:	:	

Offset adrs	Data	Contents and remarks
00 00 12	00 - 01	Gen/Osc Send Bus 12
00 00 13	00 - 01	Gen/Osc Send Main Lch Off,On
00 00 14	00 - 01	Gen/Osc Send Main Rch Off,On
00 00 15	00 - 01	Gen/Osc Send Cue Lch Off,On
00 00 16	00 - 01	Gen/Osc Send Cue Rch Off,On
00 00 17	00	(Reserved)
:	:	

❍2-15. Level Meter / Analyzer Parameter

Offset adrs	Data	Contents and remarks
00 00 00	00 - 04	Level Meter Target Select Input, MultiIn FlexBus, MultiOut, Analyzer
00 00 01	00 - 02	Level Meter Detect Point PreEQ,PFL,PostFader
00 00 02	00 - 29 (40 - 69)	Spectrum Analyzer Source Ch1,,,Ch24,Bus1,,,12 MainL,MainR,CueL,CueR,MonL,MonR bit6 : 0:Off,1:On
00 00 03	00 - 01 (40 - 41)	Spectrum Analyzer Averaging Sw Norm,Exp bit6 : 0:Off,1:On
00 00 04	00 - 7F	Spectrum Analyzer Averaging Num 1,,,128
00 00 05	00	(Reserved)
:	:	

❍2-16. Misc. Parameter

Offset adrs	Data	Contents and remarks
00 00 00	00 - 01	Cascade Delay Correct Off,On
00 00 01	00 - 01	Effect Board A Select Input, MultiIn
00 00 02	00 - 01	Effect Board B Select Input, MultiIn
00 00 03	00 - 01	Effect Board C Select Input, MultiIn
00 00 04	00 - 01	Pan Curve Type Center:-3dB(0), Center:0dB(1)
00 00 05	00 - 01	Pre Amp Gain Mode Noise Less(0),Continuous(1)
00 00 06	00	(Reserved)
:	:	

●1-3. Effect Block

❍Basic Address

Offset adrs		Contents and remarks
00 00 00	0aaaaaaa	Effector - 1 Algorithm aaaaaaabbbbbbb =
00 00 01#	0bbbbbbb	0:Reverb 1:Delay 2:Stereo Delay Chorus 3:Stereo Pitch Shifter Delay 4:Vocoder 5:2ch RSS 6:Delay RSS 7:Chorus RSS 8:Guitar Multi 1 9:Guitar Multi 2 10:Guitar Multi 3 11:Vocal Multi 12:Rotary 13:Guitar Amp Simulator 14:Stereo Phaser 15:Stereo Flanger 16:Dual Comp/Limiter 17:Gate Reverb 18:Multi Tap Delay 19:Stereo Multi 20:Reverb 2 21:Space Chorus 22:Lo-Fi Processor 23:4Band Parametric Equalizer 24:10Band Graphic Equalizer 25:Hum Canceler 26:Vocal Canceler (27:Voice Transformer *1,*2) (28:Vocoder 2 *1,*2) 29:Mic Simulator 30:3Band Isolator 31:Tape Echo 201 32:Analog Flanger 33:Analog Phaser (34:FFT *1,*2) 35:Speaker Modeling (36:Mstering Tool Kit *1,*2) (37:31Band Graphic Equalizer *1,*2) 38:Stero 2Band Dynamics 39:Dual Mono Dynamics
00 00 02	20 - 7E	Effector - 1 Name -1 (ASCII)
:	:	:
00 00 0D	20 - 7E	Effector - 1 Name -12
00 00 0E	00 - 7F	Effector - 1 Parameter Area (See Below)
:	:	:
00 00 7F	00 - 7F	
00 01 00	0aaaaaaa	Effector - 2 Algorithm aaaaaaabbbbbbb =
00 01 01#	0bbbbbbb	0:Reverb 1:Delay 2:Stereo Delay Chorus 3:Stereo Pitch Shifter Delay 4:Vocoder 5:2ch RSS 6:Delay RSS 7:Chorus RSS 8:Guitar Multi 1 9:Guitar Multi 2 10:Guitar Multi 3 11:Vocal Multi 12:Rotary 13:Guitar Amp Simulator 14:Stereo Phaser 15:Stereo Flanger 16:Dual Comp/Limiter 17:Gate Reverb 18:Multi Tap Delay 19:Stereo Multi 20:Reverb 2 21:Space Chorus 22:Lo-Fi Processor 23:4Band Parametric Equalizer 24:10Band Graphic Equalizer 25:Hum Canceler 26:Vocal Canceler (27:Voice Transformer *1,*2) (28:Vocoder 2 *1,*2) 29:Mic Simulator 30:3Band Isolator 31:Tape Echo 201 32:Analog Flanger 33:Analog Phaser (34:FFT *1,*2) 35:Speaker Modeling (36:Mstering Tool Kit *1,*2) (37:31Band Graphic Equalizer *1,*2) 38:Stero 2Band Dynamics 39:Dual Mono Dynamics
00 01 02	20 - 7E	Effector - 2 Name -1 (ASCII)

:	:	:
00 01 0D	20 - 7E	Effector - 2 Name -12
00 01 0E	20 - 7E	Effector - 2 Parameter Area (See Below)
:	:	:
00 01 7F	20 - 7E	
00 02 00	0aaaaaaa	Effector - 3 Algorithm aaaaaaabbbbbbb =
00 02 01#	0bbbbbbb	0:Reverb
		1:Delay
		2:Stereo Delay Chorus
		3:Stereo Pitch Shifter Delay
		4:Vocoder
		5:2ch RSS
		6:Delay RSS
		7:Chorus RSS
		8:Guitar Multi 1
		9:Guitar Multi 2
		10:Guitar Multi 3
		11:Vocal Multi
		12:Rotary
		13:Guitar Amp Simulator
		14:Stereo Phaser
		15:Stereo Flanger
		16:Dual Comp/Limiter
		17:Gate Reverb
		18:Multi Tap Delay
		19:Stereo Multi
		20:Reverb 2
		21:Space Chorus
		22:Lo-Fi Processor
		23:4Band Parametric Equalizer
		24:10Band Graphic Equalizer
		25:Hum Canceler
		26:Vocal Canceler
		(27:Voice Transformer *1,*2)
		(28:Vocoder 2 *1,*2)
		29:Mic Simulator
		30:3Band Isolator
		31:Tape Echo 201
		32:Analog Flanger
		33:Analog Phaser
		(34:FFT *1,*2)
		35:Speaker Modeling
		(36:Mstering Tool Kit *1,*2)
		(37:31Band Graphic Equalizer *1,*2)
		38:Stero 2Band Dynamics
		39:Dual Mono Dynamics
00 02 02	20 - 7E	Effector - 3 Name -1 (ASCII)
:	:	:
00 02 0D	20 - 7E	Effector - 3 Name -12
00 02 0E	20 - 7E	Effector - 3 Parameter Area (See Below)
:	:	:
00 02 7F	20 - 7E	
00 03 00	0aaaaaaa	Effector - 4 Algorithm aaaaaaabbbbbbb =
00 03 01#	0bbbbbbb	0:Reverb
		1:Delay
		2:Stereo Delay Chorus
		3:Stereo Pitch Shifter Delay
		4:Vocoder
		5:2ch RSS
		6:Delay RSS
		7:Chorus RSS
		8:Guitar Multi 1
		9:Guitar Multi 2
		10:Guitar Multi 3
		11:Vocal Multi
		12:Rotary
		13:Guitar Amp Simulator
		14:Stereo Phaser
		15:Stereo Flanger
		16:Dual Comp/Limiter
		17:Gate Reverb
		18:Multi Tap Delay
		19:Stereo Multi
		20:Reverb 2
		21:Space Chorus
		22:Lo-Fi Processor
		23:4Band Parametric Equalizer
		24:10Band Graphic Equalizer
		25:Hum Canceler
		26:Vocal Canceler
		(27:Voice Transformer *1,*2)
		(28:Vocoder 2 *1,*2)
		29:Mic Simulator
		30:3Band Isolator
		31:Tape Echo 201
		32:Analog Flanger
		33:Analog Phaser
		(34:FFT *1,*2)
		35:Speaker Modeling
		(36:Mstering Tool Kit *1,*2)
		(37:31Band Graphic Equalizer *1,*2)
		38:Stero 2Band Dynamics
		39:Dual Mono Dynamics
00 03 02	20 - 7E	Effector - 4 Name -1 (ASCII)
:	:	:
00 03 0D	20 - 7E	Effector - 4 Name -12
00 03 0E	20 - 7E	Effector - 4 Parameter Area (See Below)
:	:	:
00 03 7F	20 - 7E	
00 04 00	0aaaaaaa	Effector - 5 Algorithm aaaaaaabbbbbbb =
00 04 01#	0bbbbbbb	0:Reverb
		1:Delay
		2:Stereo Delay Chorus
		3:Stereo Pitch Shifter Delay
		4:Vocoder
		5:2ch RSS
		6:Delay RSS
		7:Chorus RSS
		8:Guitar Multi 1
		9:Guitar Multi 2
		10:Guitar Multi 3
		11:Vocal Multi
		12:Rotary
		13:Guitar Amp Simulator
		14:Stereo Phaser
		15:Stereo Flanger
		16:Dual Comp/Limiter
		17:Gate Reverb
		18:Multi Tap Delay
		19:Stereo Multi
		20:Reverb 2
		21:Space Chorus
		22:Lo-Fi Processor
		23:4Band Parametric Equalizer
		24:10Band Graphic Equalizer
		25:Hum Canceler
		26:Vocal Canceler
		(27:Voice Transformer *1,*2)
		(28:Vocoder 2 *1,*2)
		29:Mic Simulator
		30:3Band Isolator
		31:Tape Echo 201
		32:Analog Flanger
		33:Analog Phaser
		(34:FFT *1,*2)
		35:Speaker Modeling
		(36:Mstering Tool Kit *1,*2)
		(37:31Band Graphic Equalizer *1,*2)
		38:Stero 2Band Dynamics
		39:Dual Mono Dynamics
00 04 02	20 - 7E	Effector - 5 Name -1 (ASCII)
:	:	:
00 04 0D	20 - 7E	Effector - 5 Name -12
00 04 0E	20 - 7E	Effector - 5 Parameter Area (See Below)
:	:	:
00 04 7F	20 - 7E	
00 05 00	0aaaaaaa	Effector - 6 Algorithm aaaaaaabbbbbbb =

00 05 01#	0bbbbbbb	0:Reverb	
		1:Delay	
		2:Stereo Delay Chorus	
		3:Stereo Pitch Shifter Delay	
		4:Vocoder	
		5:2ch RSS	
		6:Delay RSS	
		7:Chorus RSS	
		8:Guitar Multi 1	
		9:Guitar Multi 2	
		10:Guitar Multi 3	
		11:Vocal Multi	
		12:Rotary	
		13:Guitar Amp Simulator	
		14:Stereo Phaser	
		15:Stereo Flanger	
		16:Dual Comp/Limiter	
		17:Gate Reverb	
		18:Multi Tap Delay	
		19:Stereo Multi	
		20:Reverb 2	
		21:Space Chorus	
		22:Lo-Fi Processor	
		23:4Band Parametric Equalizer	
		24:10Band Graphic Equalizer	
		25:Hum Canceler	
		26:Vocal Canceler	
		(27:Voice Transformer *1,*2)	
		(28:Vocoder 2 *1,*2)	
		29:Mic Simulator	
		30:3Band Isolator	
		31:Tape Echo 201	
		32:Analog Flanger	
		33:Analog Phaser	
		(34:FFT *1,*2)	
		35:Speaker Modeling	
		(36:Mstering Tool Kit *1,*2)	
		(37:31Band Graphic Equalizer *1,*2)	
		38:Stero 2Band Dynamics	
		39:Dual Mono Dynamics	
00 05 02	20 - 7E	Effector - 6 Name -1 (ASCII)	
:	:	:	
00 05 0D	20 - 7E	Effector - 6 Name -12	
00 05 0E	20 - 7E	Effector - 6 Parameter Area (See Below)	
:	:	:	
00 05 7F	20 - 7E		
00 06 00	0aaaaaaa	Effector - 7 Algorithm aaaaaaabbbbbbb =	
00 06 01#	0bbbbbbb	0:Reverb	
		1:Delay	
		2:Stereo Delay Chorus	
		3:Stereo Pitch Shifter Delay	
		4:Vocoder	
		5:2ch RSS	
		6:Delay RSS	
		7:Chorus RSS	
		8:Guitar Multi 1	
		9:Guitar Multi 2	
		10:Guitar Multi 3	
		11:Vocal Multi	
		12:Rotary	
		13:Guitar Amp Simulator	
		14:Stereo Phaser	
		15:Stereo Flanger	
		16:Dual Comp/Limiter	
		17:Gate Reverb	
		18:Multi Tap Delay	
		19:Stereo Multi	
		20:Reverb 2	
		21:Space Chorus	
		22:Lo-Fi Processor	
		23:4Band Parametric Equalizer	
		24:10Band Graphic Equalizer	
		25:Hum Canceler	
		26:Vocal Canceler	
		(27:Voice Transformer *1,*2)	
		(28:Vocoder 2 *1,*2)	
		29:Mic Simulator	
		30:3Band Isolator	
		31:Tape Echo 201	
		32:Analog Flanger	
		33:Analog Phaser	
		(34:FFT *1,*2)	
		35:Speaker Modeling	
		(36:Mstering Tool Kit *1,*2)	
		(37:31Band Graphic Equalizer *1,*2)	
		38:Stero 2Band Dynamics	
		39:Dual Mono Dynamics	
00 06 02	20 - 7E	Effector - 7 Name -1 (ASCII)	
:	:	:	
00 06 0D	20 - 7E	Effector - 7 Name -12	
00 06 0E	20 - 7E	Effector - 7 Parameter Area (See Below)	
:	:	:	
00 06 7F	20 - 7E		
00 07 00	0aaaaaaa	Effector - 8 Algorithm aaaaaaabbbbbbb =	
00 07 01#	0bbbbbbb	0:Reverb	
		1:Delay	
		2:Stereo Delay Chorus	
		3:Stereo Pitch Shifter Delay	
		4:Vocoder	
		5:2ch RSS	
		6:Delay RSS	
		7:Chorus RSS	
		8:Guitar Multi 1	
		9:Guitar Multi 2	
		10:Guitar Multi 3	
		11:Vocal Multi	
		12:Rotary	
		13:Guitar Amp Simulator	
		14:Stereo Phaser	
		15:Stereo Flanger	
		16:Dual Comp/Limiter	
		17:Gate Reverb	
		18:Multi Tap Delay	
		19:Stereo Multi	
		20:Reverb 2	
		21:Space Chorus	
		22:Lo-Fi Processor	
		23:4Band Parametric Equalizer	
		24:10Band Graphic Equalizer	
		25:Hum Canceler	
		26:Vocal Canceler	
		(27:Voice Transformer *1,*2)	
		(28:Vocoder 2 *1,*2)	
		29:Mic Simulator	
		30:3Band Isolator	
		31:Tape Echo 201	
		32:Analog Flanger	
		33:Analog Phaser	
		(34:FFT *1,*2)	
		35:Speaker Modeling	
		(36:Mstering Tool Kit *1,*2)	
		(37:31Band Graphic Equalizer *1,*2)	
		38:Stero 2Band Dynamics	
		39:Dual Mono Dynamics	
00 07 02	20 - 7E	Effector - 8 Name -1 (ASCII)	
:	:	:	
00 07 0D	20 - 7E	Effector - 8 Name -12	
00 07 0E	20 - 7E	Effector - 8 Parameter Area (See Below)	
:	:	:	
00 07 7F	20 - 7E		
00 08 00	0aaaaaaa	Master Effector Algorithm aaaaaaabbbbbbb =	
00 08 01#	0bbbbbbb	0:Speaker Modeling	
		1:10Band Parametric Equalizer	
		2:3Band Dynamics	
00 08 02	20 - 7E	Master Effector Name -1 (ASCII)	
:	:	:	
00 08 0D	20 - 7E	Master Effector Name -12	

00 08 0E	20 - 7E	Master Effector Parameter Area (See Below)
:	:	:
00 08 7F	20 - 7E	

(*1) cannot select “27:Voice Transformer,” “28:Vocoder2,” “34:FFT,” “36:Mstering Tool Kit” or “37:31Band Graphic Equalizer” on FX2, 4, 6 or 8.

(*2) cannot use FX2, 4, 6 or 8 if “27:Voice Transformer,” “28:Vocoder2,” “34:FFT,” “36:Mstering Tool Kit” or “37:31Band Graphic Equalizer” is selected on FX1, 3, 5 or 7.

(*) A meaning of the parameter area varies with the top of parameter of Effect Algorithm. See the following tables.

(*) If select the different Algorithm type from current one, all parameters will be copied from the preset patch data which uses the same algorithm.

❍Algorithm 0 Reverb

00 00 0E	0aaaaaaa	EQ SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ: Low EQ Type
00 00 11#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 12	0aaaaaaa	EQ: Low EQ Gain
00 00 13#	0bbbbbbb	-12,,,12dB
00 00 14	0aaaaaaa	EQ: Low EQ Frequency
00 00 15#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 16	0aaaaaaa	EQ: Low EQ Q
00 00 17#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 18	0aaaaaaa	EQ: Mid EQ Gain
00 00 19#	0bbbbbbb	-12,,,12dB
00 00 1A	0aaaaaaa	EQ: Mid EQ Frequency
00 00 1B#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 1C	0aaaaaaa	EQ: Mid EQ Q
00 00 1D#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 1E	0aaaaaaa	EQ: High EQ Type
00 00 1F#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 20	0aaaaaaa	EQ: High EQ Gain
00 00 21#	0bbbbbbb	-12,,,12dB
00 00 22	0aaaaaaa	EQ: High EQ Frequency
00 00 23#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 24	0aaaaaaa	EQ: High EQ Q
00 00 25#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 26	0aaaaaaa	EQ: Out Level
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Reverb: Room Size
00 00 29#	0bbbbbbb	5,,,40m
00 00 2A	0aaaaaaa	Reverb: Reverb Time
00 00 2B#	0bbbbbbb	1,,,320 = 0.1,,,32.0s
00 00 2C	0aaaaaaa	Reverb: Pre Delay
00 00 2D#	0bbbbbbb	0,,,200 = 0,,,200ms
00 00 2E	0aaaaaaa	Reverb: Diffusion
00 00 2F#	0bbbbbbb	0,,,100
00 00 30	0aaaaaaa	Reverb: Density
00 00 31#	0bbbbbbb	0,,,100
00 00 32	0aaaaaaa	Reverb: Early Reflection Level
00 00 33#	0bbbbbbb	0,,,100
00 00 34	0aaaaaaa	Reverb: LF Damp Frequency
00 00 35#	0bbbbbbb	5,,,400 = 50,,,4000Hz
00 00 36	0aaaaaaa	Reverb: LF Damp Gain
00 00 37#	0bbbbbbb	-36,,,0dB
00 00 38	0aaaaaaa	Reverb: HF Damp Frequency
00 00 39#	0bbbbbbb	10,,,200 = 1.0,,,20.0kHz
00 00 3A	0aaaaaaa	Reverb: HF Damp Gain
00 00 3B#	0bbbbbbb	-36,,,0dB
00 00 3C	0aaaaaaa	Reverb: HI Cut Frequency
00 00 3D#	0bbbbbbb	2,,,200 = 0.2,,,20.0kHz
00 00 3E	0aaaaaaa	Reverb: Effect Level
00 00 3F#	0bbbbbbb	-100,,,100
00 00 40	0aaaaaaa	Reverb: Direct Level
00 00 41#	0bbbbbbb	-100,,,100
00 00 42	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 1 Delay

00 00 0E	0aaaaaaa	Delay SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Delay: Delay Time
00 00 13#	0bbbbbbb	0,,,1200ms
00 00 14	0aaaaaaa	Delay: Shift
00 00 15#	0bbbbbbb	-1200,,,1200 = L1200,,,R1200ms
00 00 16	0aaaaaaa	Delay: Lch Feedback Level
00 00 17#	0bbbbbbb	-100,,,100
00 00 18	0aaaaaaa	Delay: Rch Feedback Level
00 00 19#	0bbbbbbb	-100,,,100
00 00 1A	0aaaaaaa	Delay: Lch Level
00 00 1B#	0bbbbbbb	-100,,,100
00 00 1C	0aaaaaaa	Delay: Rch Level
00 00 1D#	0bbbbbbb	-100,,,100
00 00 1E	0aaaaaaa	Delay: LF Damp Frequency
00 00 1F#	0bbbbbbb	5,,,400 = 50,,,4000Hz
00 00 20	0aaaaaaa	Delay: LF Damp Gain
00 00 21#	0bbbbbbb	-36,,,0dB
00 00 22	0aaaaaaa	Delay: HF Damp Frequency
00 00 23#	0bbbbbbb	10,,,200 = 1.0,,,20.0kHz
00 00 24	0aaaaaaa	Delay: HF Damp Gain
00 00 25#	0bbbbbbb	-36,,,0dB
00 00 26	0aaaaaaa	Delay: Direct Level
00 00 27#	0bbbbbbb	-100,,,100
00 00 28	0aaaaaaa	EQ: Low EQ Type
00 00 29#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 2A	0aaaaaaa	EQ: Low EQ Gain
00 00 2B#	0bbbbbbb	-12,,,12dB
00 00 2C	0aaaaaaa	EQ: Low EQ Frequency
00 00 2D#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 2E	0aaaaaaa	EQ: Low EQ Q
00 00 2F#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 30	0aaaaaaa	EQ: Mid EQ Gain
00 00 31#	0bbbbbbb	-12,,,12dB
00 00 32	0aaaaaaa	EQ: Mid EQ Frequency

00 00 33#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 34	0aaaaaaa	EQ: Mid EQ Q
00 00 35#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 36	0aaaaaaa	EQ: High EQ Type
00 00 37#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 38	0aaaaaaa	EQ: High EQ Gain
00 00 39#	0bbbbbbb	-12,,,12dB
00 00 3A	0aaaaaaa	EQ: High EQ Frequency
00 00 3B#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 3C	0aaaaaaa	EQ: High EQ Q
00 00 3D#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3E	0aaaaaaa	EQ: Out Level
00 00 3F#	0bbbbbbb	0,,,100
00 00 40	00	(Reserved)
:		:
00 00 7F	00	

* (Delay Time) + (Absolute Shift) should be 1200 or less.

❍Algorithm 2 Stereo Delay Chorus

00 00 0E	0aaaaaaa	Delay SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Chorus SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	EQ SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	Delay: Delay Time
00 00 15#	0bbbbbbb	0,,,500ms
00 00 16	0aaaaaaa	Delay: Shift
00 00 17#	0bbbbbbb	-500,,,500 = L500,,,R500ms
00 00 18	0aaaaaaa	Delay: Lch Feedback Level
00 00 19#	0bbbbbbb	-100,,,100
00 00 1A	0aaaaaaa	Delay: Rch Feedback Level
00 00 1B#	0bbbbbbb	-100,,,100
00 00 1C	0aaaaaaa	Delay: Lch Cross Feedback Level
00 00 1D#	0bbbbbbb	-100,,,100
00 00 1E	0aaaaaaa	Delay: Rch Cross Feedback Level
00 00 1F#	0bbbbbbb	-100,,,100
00 00 20	0aaaaaaa	Delay: Effect Level
00 00 21#	0bbbbbbb	-100,,,100
00 00 22	0aaaaaaa	Delay: Direct Level
00 00 23#	0bbbbbbb	-100,,,100
00 00 24	0aaaaaaa	Chorus: Rate
00 00 25#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 26	0aaaaaaa	Chorus: Depth
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Chorus: Pre Delay
00 00 29#	0bbbbbbb	0,,,50ms
00 00 2A	0aaaaaaa	Chorus: Effect Level
00 00 2B#	0bbbbbbb	-100,,,100
00 00 2C	0aaaaaaa	Chorus: Direct Level
00 00 2D#	0bbbbbbb	-100,,,100
00 00 2E	0aaaaaaa	Chorus: Lch Feedback Level
00 00 2F#	0bbbbbbb	-100,,,100
00 00 30	0aaaaaaa	Chorus: Rch Feedback Level
00 00 31#	0bbbbbbb	-100,,,100
00 00 32	0aaaaaaa	Chorus: Lch Cross Feedback Level
00 00 33#	0bbbbbbb	-100,,,100
00 00 34	0aaaaaaa	Chorus: Rch Cross Feedback Level
00 00 35#	0bbbbbbb	-100,,,100
00 00 36	0aaaaaaa	EQ: Low EQ Type
00 00 37#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 38	0aaaaaaa	EQ: Low EQ Gain
00 00 39#	0bbbbbbb	-12,,,12dB
00 00 3A	0aaaaaaa	EQ: Low EQ Frequency
00 00 3B#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 3C	0aaaaaaa	EQ: Low EQ Q
00 00 3D#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3E	0aaaaaaa	EQ: Mid EQ Gain
00 00 3F#	0bbbbbbb	-12,,,12dB
00 00 40	0aaaaaaa	EQ: Mid EQ Frequency
00 00 41#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 42	0aaaaaaa	EQ: Mid EQ Q
00 00 43#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 44	0aaaaaaa	EQ: High EQ Type
00 00 45#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 46	0aaaaaaa	EQ: High EQ Gain
00 00 47#	0bbbbbbb	-12,,,12dB
00 00 48	0aaaaaaa	EQ: High EQ Frequency
00 00 49#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 4A	0aaaaaaa	EQ: High EQ Q
00 00 4B#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 4C	0aaaaaaa	EQ: Out Level
00 00 4D#	0bbbbbbb	0,,,100
00 00 4E	00	(Reserved)
:		:
00 00 7F	00	

* (Delay Time) + (Absolute Shift) should be 500 or less.

❍Algorithm 3 Stereo Pitch Shifter Delay

00 00 0E	0aaaaaaa	P.ShifterDelay SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	P.ShifterDelay: Lch Chromatic Pitch
00 00 13#	0bbbbbbb	-12,,,12
00 00 14	0aaaaaaa	P.ShifterDelay: Lch Fine Pitch
00 00 15#	0bbbbbbb	-100,,,100
00 00 16	0aaaaaaa	P.ShifterDelay: Lch Pre Delay
00 00 17#	0bbbbbbb	0,,,50ms
00 00 18	0aaaaaaa	P.ShifterDelay: Lch Feedback Delay Time
00 00 19#	0bbbbbbb	0,,,500ms
00 00 1A	0aaaaaaa	P.ShifterDelay: Lch Feedback Level
00 00 1B#	0bbbbbbb	-100,,,100
00 00 1C	0aaaaaaa	P.ShifterDelay: Lch Cross Feedback Level

00 00 1D#	0bbbbbbb	-100,,,100
00 00 1E	0aaaaaaa	P.ShifterDelay: Rch Chromatic Pitch
00 00 1F#	0bbbbbbb	-12,,,12
00 00 20	0aaaaaaa	P.ShifterDelay: Rch Fine Pitch
00 00 21#	0bbbbbbb	-100,,,100
00 00 22	0aaaaaaa	P.ShifterDelay: Rch Pre Delay
00 00 23#	0bbbbbbb	0,,,50ms
00 00 24	0aaaaaaa	P.ShifterDelay: Rch Feedback Delay Time
00 00 25#	0bbbbbbb	0,,,500ms
00 00 26	0aaaaaaa	P.ShifterDelay: Rch Feedback Level
00 00 27#	0bbbbbbb	-100,,,100
00 00 28	0aaaaaaa	P.ShifterDelay: Rch Cross Feedback Level
00 00 29#	0bbbbbbb	-100,,,100
00 00 2A	0aaaaaaa	P.ShifterDelay: Effect Level
00 00 2B#	0bbbbbbb	-100,,,100
00 00 2C	0aaaaaaa	P.ShifterDelay: Direct Level
00 00 2D#	0bbbbbbb	-100,,,100
00 00 2E	0aaaaaaa	EQ: Low EQ Type
00 00 2F#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 30	0aaaaaaa	EQ: Low EQ Gain
00 00 31#	0bbbbbbb	-12,,,12dB
00 00 32	0aaaaaaa	EQ: Low EQ Frequency
00 00 33#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 34	0aaaaaaa	EQ: Low EQ Q
00 00 35#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 36	0aaaaaaa	EQ: Mid EQ Gain
00 00 37#	0bbbbbbb	-12,,,12dB
00 00 38	0aaaaaaa	EQ: Mid EQ Frequency
00 00 39#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 3A	0aaaaaaa	EQ: Mid EQ Q
00 00 3B#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3C	0aaaaaaa	EQ: High EQ Type
00 00 3D#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 3E	0aaaaaaa	EQ: High EQ Gain
00 00 3F#	0bbbbbbb	-12,,,12dB
00 00 40	0aaaaaaa	EQ: High EQ Frequency
00 00 41#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 42	0aaaaaaa	EQ: High EQ Q
00 00 43#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 44	0aaaaaaa	EQ: Out Level
00 00 45#	0bbbbbbb	0,,,100
00 00 46	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 4 Vocoder

00 00 0E	0aaaaaaa	Chorus SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Vocoder: Voice Character 1
00 00 11#	0bbbbbbb	0,,,100
00 00 12	0aaaaaaa	Vocoder: Voice Character 2
00 00 13#	0bbbbbbb	0,,,100
00 00 14	0aaaaaaa	Vocoder: Voice Character 3
00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Vocoder: Voice Character 4
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Vocoder: Voice Character 5
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Vocoder: Voice Character 6
00 00 1B#	0bbbbbbb	0,,,100
00 00 1C	0aaaaaaa	Vocoder: Voice Character 7
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Vocoder: Voice Character 8
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Vocoder: Voice Character 9
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Vocoder: Voice Character 10
00 00 23#	0bbbbbbb	0,,,100
00 00 24	0aaaaaaa	Chorus: Rate
00 00 25#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 26	0aaaaaaa	Chorus: Depth
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Chorus: Pre Delay
00 00 29#	0bbbbbbb	0,,,50ms
00 00 2A	0aaaaaaa	Chorus: Feedback Level
00 00 2B#	0bbbbbbb	-100,,,100
00 00 2C	0aaaaaaa	Chorus: Effect Level
00 00 2D#	0bbbbbbb	-100,,,100
00 00 2E	0aaaaaaa	Chorus: Direct Level
00 00 2F#	0bbbbbbb	-100,,,100
00 00 30	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 5 2CH RSS

00 00 0E	0aaaaaaa	2CH RSS: Ach Azimuth
00 00 0F#	0bbbbbbb	-30,,,30 = -180,,,180
00 00 10	0aaaaaaa	2CH RSS: Ach Elevation
00 00 11#	0bbbbbbb	-15,,,15 = -90,,,90
00 00 12	0aaaaaaa	2CH RSS: Bch Azimuth
00 00 13#	0bbbbbbb	-30,,,30 = -180,,,180
00 00 14	0aaaaaaa	2CH RSS: Bch Elevation
00 00 15#	0bbbbbbb	-15,,,15 = -90,,,90
00 00 16	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 6 Delay RSS

00 00 0E	0aaaaaaa	Delay RSS: Delay Time
00 00 0F#	0bbbbbbb	0,,,1200ms
00 00 10	0aaaaaaa	Delay RSS: Shift
00 00 11#	0bbbbbbb	-1200,,,1200 = L1200,,,R1200ms
00 00 12	0aaaaaaa	Delay RSS: Center Delay Time
00 00 13#	0bbbbbbb	0,,,1200ms
00 00 14	0aaaaaaa	Delay RSS: RSS Level

00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Delay RSS: Center Level
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Delay RSS: Feedback Level
00 00 19#	0bbbbbbb	-100,,,100
00 00 1A	0aaaaaaa	Delay RSS: LF Damp Frequency
00 00 1B#	0bbbbbbb	5,,,400 = 50,,,4000Hz
00 00 1C	0aaaaaaa	Delay RSS: LF Damp Gain
00 00 1D#	0bbbbbbb	-36,,,0dB
00 00 1E	0aaaaaaa	Delay RSS: HF Damp Frequency
00 00 1F#	0bbbbbbb	10,,,200 = 1.0,,,20.0kHz
00 00 20	0aaaaaaa	Delay RSS: HF Damp Gain
00 00 21#	0bbbbbbb	-36,,,0dB
00 00 22	0aaaaaaa	Delay RSS: Effect Level
00 00 23#	0bbbbbbb	-100,,,100
00 00 24	0aaaaaaa	Delay RSS: Direct Level
00 00 25#	0bbbbbbb	-100,,,100
00 00 26	00	(Reserved)
: :
| 00 00 7F | 00 | |

❍Algorithm 7 Chorus RSS

00 00 0E	0aaaaaaa	Chorus RSS: Chorus Rate
00 00 0F#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 10	0aaaaaaa	Chorus RSS: Chorus Depth
00 00 11#	0bbbbbbb	0,,,100
00 00 12	0aaaaaaa	Chorus RSS: Effect Level
00 00 13#	0bbbbbbb	-100,,,100
00 00 14	0aaaaaaa	Chorus RSS: Direct Level
00 00 15#	0bbbbbbb	-100,,,100
00 00 16	00	(Reserved)
: :
| 00 00 7F | 00 | |

❍Common for Algorithm 8, 9, 10 Guitar Multi 1, 2, 3

00 00 0E	0aaaaaaa	Compressor SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Metal/Distortion/Over Drive SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Noise Suppressor SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	Auto Wah SW
00 00 15#	0bbbbbbb	0,1 = Off,On
00 00 16	0aaaaaaa	Guitar Amp Simulator SW
00 00 17#	0bbbbbbb	0,1 = Off,On
00 00 18	0aaaaaaa	Flanger SW
00 00 19#	0bbbbbbb	0,1 = Off,On
00 00 1A	0aaaaaaa	Delay SW
00 00 1B#	0bbbbbbb	0,1 = Off,On
00 00 1C	0aaaaaaa	Compressor: Attack
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Compressor: Level
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Compressor: Sustain
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Compressor: Tone
00 00 23#	0bbbbbbb	-50,,,-50
00 00 24	0aaaaaaa	Noise Suppressor: Threshold
00 00 25#	0bbbbbbb	0,,,100
00 00 26	0aaaaaaa	Noise Suppressor: Release
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Auto Wah: Mode
00 00 29#	0bbbbbbb	0,1 = LPF,BPF
00 00 2A	0aaaaaaa	Auto Wah: Polarity
00 00 2B#	0bbbbbbb	0,1 = Down,Up
00 00 2C	0aaaaaaa	Auto Wah: Frequency
00 00 2D#	0bbbbbbb	0,,,100
00 00 2E	0aaaaaaa	Auto Wah: Level
00 00 2F#	0bbbbbbb	0,,,100
00 00 30	0aaaaaaa	Auto Wah: Peak
00 00 31#	0bbbbbbb	0,,,100
00 00 32	0aaaaaaa	Auto Wah: Sens
00 00 33#	0bbbbbbb	0,,,100
00 00 34	0aaaaaaa	Auto Wah: Rate
00 00 35#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 36	0aaaaaaa	Auto Wah: Depth
00 00 37#	0bbbbbbb	0,,,100
00 00 38	0aaaaaaa	Guitar Amp Simulator: Mode
00 00 39#	0bbbbbbb	0,,,3 = Small,BultIn,2Stack,3Stack
00 00 3A	0aaaaaaa	Flanger: Rate
00 00 3B#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 3C	0aaaaaaa	Flanger: Depth
00 00 3D#	0bbbbbbb	0,,,100
00 00 3E	0aaaaaaa	Flanger: Manual
00 00 3F#	0bbbbbbb	0,,,100
00 00 40	0aaaaaaa	Flanger: Resonance
00 00 41#	0bbbbbbb	0,,,100
00 00 42	0aaaaaaa	Delay: Delay Time
00 00 43#	0bbbbbbb	0,,,1000ms
00 00 44	0aaaaaaa	Delay: Shift
00 00 45#	0bbbbbbb	-1000,,,1000 = L1000,,,R1000ms
00 00 46	0aaaaaaa	Delay: Feedback Time
00 00 47#	0bbbbbbb	0,,,1000ms
00 00 48	0aaaaaaa	Delay: Feedback Level
00 00 49#	0bbbbbbb	-100,,,100
00 00 4A	0aaaaaaa	Delay: Effect Level
00 00 4B#	0bbbbbbb	-100,,,100
00 00 4C	0aaaaaaa	Delay: Direct Level
00 00 4D#	0bbbbbbb	-100,,,100

* (Delay Time) + (Absolute Shift) should be 1000 or less.

❍Individual : Algorithm 8 Guitar Multi 1

00 00 4E	0aaaaaaa	Metal: Gain
00 00 4F#	0bbbbbbb	0,,,100

| 00 00 50 | 0aaaaaaa| Metal: Level |
| 00 00 51#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 52 | 0aaaaaaa| Metal: Hi Gain |
| 00 00 53#| 0bbbbbbb| -100,,,100|
|----------+---------+----------|
| 00 00 54 | 0aaaaaaa| Metal: Mid Gain |
| 00 00 55#| 0bbbbbbb| -100,,,100|
|----------+---------+----------|
| 00 00 56 | 0aaaaaaa| Metal: Low Gain |
| 00 00 57#| 0bbbbbbb| -100,,,100|
|----------+---------+----------|
| 00 00 58 | 00 | (Reserved) |
:   :
| 00 00 7F | 00 | |
+----------+---------+----------+

❍Individual : Algorithm 9 Guitar Multi 2

| 00 00 4E | 0aaaaaaa| Distortion: Gain |
| 00 00 4F#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 50 | 0aaaaaaa| Distortion: Level |
| 00 00 51#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 52 | 0aaaaaaa| Distortion: Tone |
| 00 00 53#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 54 | 00 | (Reserved) |
:   :
| 00 00 7F | 00 | |
+----------+---------+----------+

❍Individual : Algorithm 10 Guitar Multi 3

| 00 00 4E | 0aaaaaaa| Over Drive: Gain |
| 00 00 4F#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 50 | 0aaaaaaa| Over Drive: Level |
| 00 00 51#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 52 | 0aaaaaaa| Over Drive: Tone |
| 00 00 53#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 54 | 00 | (Reserved) |
:   :
| 00 00 7F | 00 | |
+----------+---------+----------+

❍Algorithm 11 Vocal Multi

| 00 00 0E | 0aaaaaaa| Noise Suppressor SW |
| 00 00 0F#| 0bbbbbbb| 0,1 = Off,On|
|----------+---------+----------|
| 00 00 10 | 0aaaaaaa| Limiter/De-esser SW |
| 00 00 11#| 0bbbbbbb| 0,1 = Off,On|
|----------+---------+----------|
| 00 00 12 | 0aaaaaaa| Enhancer SW |
| 00 00 13#| 0bbbbbbb| 0,1 = Off,On|
|----------+---------+----------|
| 00 00 14 | 0aaaaaaa| EQ SW |
| 00 00 15#| 0bbbbbbb| 0,1 = Off,On|
|----------+---------+----------|
| 00 00 16 | 0aaaaaaa| P.Shifter SW |
| 00 00 17#| 0bbbbbbb| 0,1 = Off,On|
|----------+---------+----------|
| 00 00 18 | 0aaaaaaa| Delay SW |
| 00 00 19#| 0bbbbbbb| 0,1 = Off,On|
|----------+---------+----------|
| 00 00 1A | 0aaaaaaa| Chorus SW |
| 00 00 1B#| 0bbbbbbb| 0,1 = Off,On|
|----------+---------+----------|
| 00 00 1C | 0aaaaaaa| Limiter/De-esser Mode |
| 00 00 1D#| 0bbbbbbb| 0,1 = Limiter,De-esser|
|----------+---------+----------|
| 00 00 1E | 0aaaaaaa| Noise Suppressor: Threshold |
| 00 00 1F#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 20 | 0aaaaaaa| Noise Suppressor: Release |
| 00 00 21#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 22 | 0aaaaaaa| Limiter: Threshold |
| 00 00 23#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 24 | 0aaaaaaa| Limiter: Release |
| 00 00 25#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 26 | 0aaaaaaa| Limiter: Level |
| 00 00 27#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 28 | 0aaaaaaa| De-esser: Sens |
| 00 00 29#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 2A | 0aaaaaaa| De-esser: Frequency |
| 00 00 2B#| 0bbbbbbb| 10,,,100 = 1.0,,,10.0kHz|
|----------+---------+----------|
| 00 00 2C | 0aaaaaaa| Enhancer: Sens |
| 00 00 2D#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 2E | 0aaaaaaa| Enhancer: Frequency |
| 00 00 2F#| 0bbbbbbb| 10,,,100 = 1.0,,,10.0kHz|
|----------+---------+----------|
| 00 00 30 | 0aaaaaaa| Enhancer: MIX Level |
| 00 00 31#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 32 | 0aaaaaaa| Enhancer: Level |
| 00 00 33#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 34 | 0aaaaaaa| EQ: Low EQ Type |
| 00 00 35#| 0bbbbbbb| 0,1 = Shelving, Peaking|
|----------+---------+----------|
| 00 00 36 | 0aaaaaaa| EQ: Low EQ Gain |
| 00 00 37#| 0bbbbbbb| -12,,,12dB|
|----------+---------+----------|
| 00 00 38 | 0aaaaaaa| EQ: Low EQ Frequency |
| 00 00 39#| 0bbbbbbb| 2,,,200 = 20,,,2000Hz|
|----------+---------+----------|
| 00 00 3A | 0aaaaaaa| EQ: Low EQ Q |
| 00 00 3B#| 0bbbbbbb| 3,,,100 = 0.3,,,10.0|
|----------+---------+----------|
| 00 00 3C | 0aaaaaaa| EQ: Mid EQ Gain |
| 00 00 3D#| 0bbbbbbb| -12,,,12dB|
|----------+---------+----------|
| 00 00 3E | 0aaaaaaa| EQ: Mid EQ Frequency |
| 00 00 3F#| 0bbbbbbb| 20,,,800 = 200,,,8000Hz|
|----------+---------+----------|
| 00 00 40 | 0aaaaaaa| EQ: Mid EQ Q |
| 00 00 41#| 0bbbbbbb| 3,,,100 = 0.3,,,10.0|
|----------+---------+----------|
| 00 00 42 | 0aaaaaaa| EQ: High EQ Type |
| 00 00 43#| 0bbbbbbb| 0,1 = Shelving, Peaking|
|----------+---------+----------|
| 00 00 44 | 0aaaaaaa| EQ: High EQ Gain |
| 00 00 45#| 0bbbbbbb| -12,,,12dB|
|----------+---------+----------|
| 00 00 46 | 0aaaaaaa| EQ: High EQ Frequency |
| 00 00 47#| 0bbbbbbb| 14,,,200 = 1.4,,,20.0kHz|
|----------+---------+----------|
| 00 00 48 | 0aaaaaaa| EQ: High EQ Q |
| 00 00 49#| 0bbbbbbb| 3,,,100 = 0.3,,,10.0|
|----------+---------+----------|
| 00 00 4A | 0aaaaaaa| EQ: Out Level |
| 00 00 4B#| 0bbbbbbb| 0,,,100|
|----------+---------+----------|
| 00 00 4C | 0aaaaaaa| P.Shifter: Chromatic Pitch |
| 00 00 4D#| 0bbbbbbb| -12,,,12|
|----------+---------+----------|
| 00 00 4E | 0aaaaaaa| P.Shifter: Fine Pitch |
| 00 00 4F#| 0bbbbbbb| -100,,,100|
|----------+---------+----------|
| 00 00 50 | 0aaaaaaa| P.Shifter: Effect Level |
| 00 00 51#| 0bbbbbbb| -100,,,100|
|----------+---------+----------|
| 00 00 52 | 0aaaaaaa| P.Shifter: Direct Level |
| 00 00 53#| 0bbbbbbb| -100,,,100|
|----------+---------+----------|
| 00 00 54 | 0aaaaaaa| Delay: Delay Time |

00 00 55#	0bbbbbbb	0,,,1000
00 00 56	0aaaaaaa	Delay: Feedback Level
00 00 57#	0bbbbbbb	-100,,,100
00 00 58	0aaaaaaa	Delay: Effect Level
00 00 59#	0bbbbbbb	-100,,,100
00 00 5A	0aaaaaaa	Delay: Direct Level
00 00 5B#	0bbbbbbb	-100,,,100
00 00 5C	0aaaaaaa	Chorus: Rate
00 00 5D#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 5E	0aaaaaaa	Chorus: Depth
00 00 5F#	0bbbbbbb	0,,,100
00 00 60	0aaaaaaa	Chorus: Pre Delay
00 00 61#	0bbbbbbb	0,,,50ms
00 00 62	0aaaaaaa	Chorus: Effect Level
00 00 63#	0bbbbbbb	-100,,,100
00 00 64	0aaaaaaa	Chorus: Direct Level
00 00 65#	0bbbbbbb	-100,,,100
00 00 66	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 12 Rotary

00 00 0E	0aaaaaaa	Noise Suppressor SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Over Drive SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Noise Suppressor: Threshold
00 00 13#	0bbbbbbb	0,,,100
00 00 14	0aaaaaaa	Noise Suppressor: Release
00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Over Drive: Gain
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Over Drive: Level
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Rotary: Low Rate
00 00 1B#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 1C	0aaaaaaa	Rotary: Hi Rate
00 00 1D#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 1E	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 13 Guitar AMP Simulator

00 00 0E	0aaaaaaa	Noise Suppressor SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Pre Amp SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Speaker SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	Noise Suppressor: Threshold
00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Noise Suppressor: Release
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Pre Amp: Mode
00 00 19#	0bbbbbbb	0,,,13 = JC-120,Clean Twin,Match Drive,BG Lead, MS1959(I), MS1959(II), MS1959(I+II), SLDN Lead, Metal 5150, Metal Lead, OD-1, OD-2Turbo, Distortion, Fuzz
00 00 1A	0aaaaaaa	Pre Amp: Volume
00 00 1B#	0bbbbbbb	0,,,100
00 00 1C	0aaaaaaa	Pre Amp: Bass
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Pre Amp: Middle
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Pre Amp: Treble
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Pre Amp: Presence
00 00 23#	0bbbbbbb	0,,,100
00 00 24	0aaaaaaa	Pre Amp: Master
00 00 25#	0bbbbbbb	0,,,100
00 00 26	0aaaaaaa	Pre Amp: Bright
00 00 27#	0bbbbbbb	0,1 = Off,On
00 00 28	0aaaaaaa	Pre Amp: Gain
00 00 29#	0bbbbbbb	0,1,2 = Low,Middle,High
00 00 2A	0aaaaaaa	Speaker: Type
00 00 2B#	0bbbbbbb	0,,,11 = Small. Middle, JC-120, Built In 1, Built In 2,Built In 3, Built In 4, BG Stack 1, BG Stack 2, MS Stack 1, MS Stack 2, Metal Stack
00 00 2C	0aaaaaaa	Speaker: MIC Setting
00 00 2D#	0bbbbbbb	0,1,2 = 1,2,3
00 00 2E	0aaaaaaa	Speaker: MIC Level
00 00 2F#	0bbbbbbb	0,,,100
00 00 30	0aaaaaaa	Speaker: Direct Level
00 00 31#	0bbbbbbb	0,,,100
00 00 32	00	(Reserved)
:		:
00 00 7F	00	

(*) The “Pre Amp Middle” is invalid when “Mode” is “Match Drive.”

(*) The “Pre Amp Presence” works counter to the Value(-100,,,0) when “Mode” is “Match Drive.”

(*) The “Pre Amp Bright” is valid when “Mode” is “JC-120,” “Clean Twin” or “BG Lead.”

❍Algorithm 14 Stereo Phaser

00 00 0E	0aaaaaaa	Phaser SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Phaser: Mode
00 00 13#	0bbbbbbb	0,,,3 = 4.8.12.16stage
00 00 14	0aaaaaaa	Phaser: Rate
00 00 15#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 16	0aaaaaaa	Phaser: Depth
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Phaser: Polarity
00 00 19#	0bbbbbbb	0,1 = Inverse,Synchro
00 00 1A	0aaaaaaa	Phaser: Manual
00 00 1B#	0bbbbbbb	0,,,100

00 00 1C	0aaaaaaa	Phaser: Resonance
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Phaser: Cross Feedback
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Phaser: Effect Level
00 00 21#	0bbbbbbb	-100,,,100
00 00 22	0aaaaaaa	Phaser: Direct Level
00 00 23#	0bbbbbbb	-100,,,100
00 00 24	0aaaaaaa	EQ: Low EQ Type
00 00 25#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 26	0aaaaaaa	EQ: Low EQ Gain
00 00 27#	0bbbbbbb	-12,,,12dB
00 00 28	0aaaaaaa	EQ: Low EQ Frequency
00 00 29#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 2A	0aaaaaaa	EQ: Low EQ Q
00 00 2B#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 2C	0aaaaaaa	EQ: Mid EQ Gain
00 00 2D#	0bbbbbbb	-12,,,12dB
00 00 2E	0aaaaaaa	EQ: Mid EQ Frequency
00 00 2F#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 30	0aaaaaaa	EQ: Mid EQ Q
00 00 31#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 32	0aaaaaaa	EQ: High EQ Type
00 00 33#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 34	0aaaaaaa	EQ: High EQ Gain
00 00 35#	0bbbbbbb	-12,,,12dB
00 00 36	0aaaaaaa	EQ: High EQ Frequency
00 00 37#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 38	0aaaaaaa	EQ: High EQ Q
00 00 39#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3A	0aaaaaaa	EQ: Out Level
00 00 3B#	0bbbbbbb	0,,,100
00 00 3C	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 15 Stereo Flanger

00 00 0E	0aaaaaaa	Flanger SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Flanger: Rate
00 00 13#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 14	0aaaaaaa	Flanger: Depth
00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Flanger: Polarity
00 00 17#	0bbbbbbb	0,1 = Inverse,Synchro
00 00 18	0aaaaaaa	Flanger: Manual
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Flanger: Resonance
00 00 1B#	0bbbbbbb	0,,,100
00 00 1C	0aaaaaaa	Flanger: Cross Feedback Level
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Flanger: Effect Level
00 00 1F#	0bbbbbbb	-100,,,100
00 00 20	0aaaaaaa	Flanger: Direct Level
00 00 21#	0bbbbbbb	-100,,,100
00 00 22	0aaaaaaa	EQ: Low EQ Type
00 00 23#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 24	0aaaaaaa	EQ: Low EQ Gain
00 00 25#	0bbbbbbb	-12,,,12dB
00 00 26	0aaaaaaa	EQ: Low EQ Frequency
00 00 27#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 28	0aaaaaaa	EQ: Low EQ Q
00 00 29#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 2A	0aaaaaaa	EQ: Mid EQ Gain
00 00 2B#	0bbbbbbb	-12,,,12dB
00 00 2C	0aaaaaaa	EQ: Mid EQ Frequency
00 00 2D#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 2E	0aaaaaaa	EQ: Mid EQ Q
00 00 2F#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 30	0aaaaaaa	EQ: High EQ Type
00 00 31#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 32	0aaaaaaa	EQ: High EQ Gain
00 00 33#	0bbbbbbb	-12,,,12dB
00 00 34	0aaaaaaa	EQ: High EQ Frequency
00 00 35#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 36	0aaaaaaa	EQ: High EQ Q
00 00 37#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 38	0aaaaaaa	EQ: Out Level
00 00 39#	0bbbbbbb	0,,,100
00 00 3A	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 16 Dual Compressor/Limiter

00 00 0E	0aaaaaaa	Comp/Limit A SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Noise Suppressor A SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Comp/Limit B SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	Noise Suppressor B SW
00 00 15#	0bbbbbbb	0,1 = Off,On
00 00 16	0aaaaaaa	Comp/Limit A: Detect
00 00 17#	0bbbbbbb	0,1,2 = A,B,Link
00 00 18	0aaaaaaa	Comp/Limit A: Level
00 00 19#	0bbbbbbb	-60,,,12dB
00 00 1A	0aaaaaaa	Comp/Limit A: Thresh
00 00 1B#	0bbbbbbb	-60,,,0dB
00 00 1C	0aaaaaaa	Comp/Limit A: Attack
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Comp/Limit A: Release
00 00 1F#	0bbbbbbb	0,,,100

00 00 20	0aaaaaaa	Comp/Limit A: Ratio
00 00 21#	0bbbbbbb	0,,,3 = 1.5:1,2:1,4:1,100:1
00 00 22	0aaaaaaa	Noise Suppressor A: Detect
00 00 23#	0bbbbbbb	0,1,2 = A,B,Link
00 00 24	0aaaaaaa	Noise Suppressor A: Threshold
00 00 25#	0bbbbbbb	0,,,100
00 00 26	0aaaaaaa	Noise Suppressor A: Release
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Comp/Limit B: Detect
00 00 29#	0bbbbbbb	0,1,2 = A,B,Link
00 00 2A	0aaaaaaa	Comp/Limit B: Level
00 00 2B#	0bbbbbbb	-60,,,12dB
00 00 2C	0aaaaaaa	Comp/Limit B: Thresh
00 00 2D#	0bbbbbbb	-60,,,0dB
00 00 2E	0aaaaaaa	Comp/Limit B: Attack
00 00 2F#	0bbbbbbb	0,,,100
00 00 30	0aaaaaaa	Comp/Limit B: Release
00 00 31#	0bbbbbbb	0,,,100
00 00 32	0aaaaaaa	Comp/Limit B: Ratio
00 00 33#	0bbbbbbb	0,,,3 = 1.5:1,2:1,4:1,100:1
00 00 34	0aaaaaaa	Noise Suppressor B: Detect
00 00 35#	0bbbbbbb	0,1,2 = A,B,Link
00 00 36	0aaaaaaa	Noise Suppressor B: Threshold
00 00 37#	0bbbbbbb	0,,,100
00 00 38	0aaaaaaa	Noise Suppressor B: Release
00 00 39#	0bbbbbbb	0,,,100
00 00 3A	00	(Reserved)
: : :
| 00 00 7F | 00 | |

❍Algorithm 17 Gate Reverb

00 00 0E	0aaaaaaa	G.Reverb SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	G.Reverb: Gate Time
00 00 13#	0bbbbbbb	10,,,400ms
00 00 14	0aaaaaaa	G.Reverb: Pre Delay
00 00 15#	0bbbbbbb	0,,,300ms
00 00 16	0aaaaaaa	G.Reverb: Effect Level
00 00 17#	0bbbbbbb	-100,,,100
00 00 18	0aaaaaaa	G.Reverb: Mode
00 00 19#	0bbbbbbb	0,,,4 = Normal,L->R,R->L,Reverse1,Reverse2
00 00 1A	0aaaaaaa	G.Reverb: Thickness
00 00 1B#	0bbbbbbb	0,,,100
00 00 1C	0aaaaaaa	G.Reverb: Density
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	G.Reverb: Accent Delay
00 00 1F#	0bbbbbbb	0,,,200ms
00 00 20	0aaaaaaa	G.Reverb: Accent Level
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	G.Reverb: Accent Pan
00 00 23#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 24	0aaaaaaa	G.Reverb: Direct Level
00 00 25#	0bbbbbbb	-100,,,100
00 00 26	0aaaaaaa	EQ: Low EQ Type
00 00 27#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 28	0aaaaaaa	EQ: Low EQ Gain
00 00 29#	0bbbbbbb	-12,,,12dB
00 00 2A	0aaaaaaa	EQ: Low EQ Frequency
00 00 2B#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 2C	0aaaaaaa	EQ: Low EQ Q
00 00 2D#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 2E	0aaaaaaa	EQ: Mid EQ Gain
00 00 2F#	0bbbbbbb	-12,,,12dB
00 00 30	0aaaaaaa	EQ: Mid EQ Frequency
00 00 31#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 32	0aaaaaaa	EQ: Mid EQ Q
00 00 33#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 34	0aaaaaaa	EQ: High EQ Type
00 00 35#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 36	0aaaaaaa	EQ: High EQ Gain
00 00 37#	0bbbbbbb	-12,,,12dB
00 00 38	0aaaaaaa	EQ: High EQ Frequency
00 00 39#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 3A	0aaaaaaa	EQ: High EQ Q
00 00 3B#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3C	0aaaaaaa	EQ: Out Level
00 00 3D#	0bbbbbbb	0,,,100
00 00 3E	00	(Reserved)
: : :
| 00 00 7F | 00 | |

❍Algorithm 18 Multi Tap Delay

00 00 0E	0aaaaaaa	EQ SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	M.Tap Delay: Time 1
00 00 11#	0bbbbbbb	0,,,1200ms
00 00 12	0aaaaaaa	M.Tap Delay: Level 1
00 00 13#	0bbbbbbb	0,,,100
00 00 14	0aaaaaaa	M.Tap Delay: Pan 1
00 00 15#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 16	0aaaaaaa	M.Tap Delay: Time 2
00 00 17#	0bbbbbbb	0,,,1200ms
00 00 18	0aaaaaaa	M.Tap Delay: Level 2
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	M.Tap Delay: Pan 2
00 00 1B#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 1C	0aaaaaaa	M.Tap Delay: Time 3
00 00 1D#	0bbbbbbb	0,,,1200ms
00 00 1E	0aaaaaaa	M.Tap Delay: Level 3
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	M.Tap Delay: Pan 3
00 00 21#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 22	0aaaaaaa	M.Tap Delay: Time 4

00 00 23#	0bbbbbbb	0,,,1200ms
00 00 24	0aaaaaaa	M.Tap Delay: Level 4
00 00 25#	0bbbbbbb	0,,,100
00 00 26	0aaaaaaa	M.Tap Delay: Pan 4
00 00 27#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 28	0aaaaaaa	M.Tap Delay: Time 5
00 00 29#	0bbbbbbb	0,,,1200ms
00 00 2A	0aaaaaaa	M.Tap Delay: Level 5
00 00 2B#	0bbbbbbb	0,,,100
00 00 2C	0aaaaaaa	M.Tap Delay: Pan 5
00 00 2D#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 2E	0aaaaaaa	M.Tap Delay: Time 6
00 00 2F#	0bbbbbbb	0,,,1200ms
00 00 30	0aaaaaaa	M.Tap Delay: Level 6
00 00 31#	0bbbbbbb	0,,,100
00 00 32	0aaaaaaa	M.Tap Delay: Pan 6
00 00 33#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 34	0aaaaaaa	M.Tap Delay: Time 7
00 00 35#	0bbbbbbb	0,,,1200ms
00 00 36	0aaaaaaa	M.Tap Delay: Level 7
00 00 37#	0bbbbbbb	0,,,100
00 00 38	0aaaaaaa	M.Tap Delay: Pan 7
00 00 39#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 3A	0aaaaaaa	M.Tap Delay: Time 8
00 00 3B#	0bbbbbbb	0,,,1200ms
00 00 3C	0aaaaaaa	M.Tap Delay: Level 8
00 00 3D#	0bbbbbbb	0,,,100
00 00 3E	0aaaaaaa	M.Tap Delay: Pan 8
00 00 3F#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 40	0aaaaaaa	M.Tap Delay: Time 9
00 00 41#	0bbbbbbb	0,,,1200ms
00 00 42	0aaaaaaa	M.Tap Delay: Level 9
00 00 43#	0bbbbbbb	0,,,100
00 00 44	0aaaaaaa	M.Tap Delay: Pan 9
00 00 45#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 46	0aaaaaaa	M.Tap Delay: Time 10
00 00 47#	0bbbbbbb	0,,,1200ms
00 00 48	0aaaaaaa	M.Tap Delay: Level 10
00 00 49#	0bbbbbbb	0,,,100
00 00 4A	0aaaaaaa	M.Tap Delay: Pan 10
00 00 4B#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 4C	0aaaaaaa	M.Tap Delay: Feedback Delay Time
00 00 4D#	0bbbbbbb	0,,,1200ms
00 00 4E	0aaaaaaa	M.Tap Delay: Feedback Level
00 00 4F#	0bbbbbbb	-100,,,100
00 00 50	0aaaaaaa	M.Tap Delay: Effect Level
00 00 51#	0bbbbbbb	-100,,,100
00 00 52	0aaaaaaa	M.Tap Delay: Direct Level
00 00 53#	0bbbbbbb	-100,,,100
00 00 54	0aaaaaaa	EQ: Low EQ Type
00 00 55#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 56	0aaaaaaa	EQ: Low EQ Gain
00 00 57#	0bbbbbbb	-12,,,12dB
00 00 58	0aaaaaaa	EQ: Low EQ Frequency
00 00 59#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 5A	0aaaaaaa	EQ: Low EQ Q
00 00 5B#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 5C	0aaaaaaa	EQ: Mid EQ Gain
00 00 5D#	0bbbbbbb	-12,,,12dB
00 00 5E	0aaaaaaa	EQ: Mid EQ Frequency
00 00 5F#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 60	0aaaaaaa	EQ: Mid EQ Q
00 00 61#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 62	0aaaaaaa	EQ: High EQ Type
00 00 63#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 64	0aaaaaaa	EQ: High EQ Gain
00 00 65#	0bbbbbbb	-12,,,12dB
00 00 66	0aaaaaaa	EQ: High EQ Frequency
00 00 67#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 68	0aaaaaaa	EQ: High EQ Q
00 00 69#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 6A	0aaaaaaa	EQ: Out Level
00 00 6B#	0bbbbbbb	0,,,100
00 00 6C	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 19 Stereo Multi

00 00 0E	0aaaaaaa	Noise Suppressor SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Comp/Limit SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Enhancer SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	EQ SW
00 00 15#	0bbbbbbb	0,1 = Off,On
00 00 16	0aaaaaaa	Noise Suppressor: Threshold
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Noise Suppressor: Release
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Comp/Limit: Level
00 00 1B#	0bbbbbbb	-60,,,12dB
00 00 1C	0aaaaaaa	Comp/Limit: Thresh
00 00 1D#	0bbbbbbb	-60,,,0dB
00 00 1E	0aaaaaaa	Comp/Limit: Attack
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Comp/Limit: Release
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Comp/Limit: Ratio
00 00 23#	0bbbbbbb	0,,,3 = 1.5:1,2:1,4:1,100:1
00 00 24	0aaaaaaa	Enhancer: Sens
00 00 25#	0bbbbbbb	0,,,100
00 00 26	0aaaaaaa	Enhancer: Frequency
00 00 27#	0bbbbbbb	10,,,100 = 1.0,,,10.0kHz
00 00 28	0aaaaaaa	Enhancer: MIX Level

00 00 29#	0bbbbbbb	0,,,100
00 00 2A	0aaaaaaa	Enhancer: Level
00 00 2B#	0bbbbbbb	0,,,100
00 00 2C	0aaaaaaa	EQ: Low EQ Type
00 00 2D#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 2E	0aaaaaaa	EQ: Low EQ Gain
00 00 2F#	0bbbbbbb	-12,,,12dB
00 00 30	0aaaaaaa	EQ: Low EQ Frequency
00 00 31#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 32	0aaaaaaa	EQ: Low EQ Q
00 00 33#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 34	0aaaaaaa	EQ: Mid EQ Gain
00 00 35#	0bbbbbbb	-12,,,12dB
00 00 36	0aaaaaaa	EQ: Mid EQ Frequency
00 00 37#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 38	0aaaaaaa	EQ: Mid EQ Q
00 00 39#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3A	0aaaaaaa	EQ: High EQ Type
00 00 3B#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 3C	0aaaaaaa	EQ: High EQ Gain
00 00 3D#	0bbbbbbb	-12,,,12dB
00 00 3E	0aaaaaaa	EQ: High EQ Frequency
00 00 3F#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 40	0aaaaaaa	EQ: High EQ Q
00 00 41#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 42	0aaaaaaa	EQ: Out Level
00 00 43#	0bbbbbbb	0,,,100
00 00 44	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 20 Reverb 2

00 00 0E	0aaaaaaa	Reverb SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Reverb 2: Reverb Type
00 00 13#	0bbbbbbb	0,,,4 = Room1,Room2,Hall1,Hall2,Plate
00 00 14	0aaaaaaa	Reverb 2: Reverb Time
00 00 15#	0bbbbbbb	1,,,100 = 0.1,,,10.0sec
00 00 16	0aaaaaaa	Reverb 2: Pre Delay
00 00 17#	0bbbbbbb	0,,,200msec
00 00 18	0aaaaaaa	Reverb 2: Density
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Reverb 2: High Pass Filter
00 00 1B#	0bbbbbbb	1,,,200 = Thru,20,,,2000Hz
00 00 1C	0aaaaaaa	Reverb 2: Low Pass Filter
00 00 1D#	0bbbbbbb	10,,,201 = 1.0,,,20,0kHz,Thru
00 00 1E	0aaaaaaa	Reverb 2: Effect Level
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Reverb 2: Direct Level
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Reverb 2: Gate SW
00 00 23#	0bbbbbbb	0,1 = Off,On
00 00 24	0aaaaaaa	Reverb 2: Gate Mode
00 00 25#	0bbbbbbb	0,1 = Gate,Ducking
00 00 26	0aaaaaaa	Reverb 2: Gate Threshold
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Reverb 2: Gate Attack Time
00 00 29#	0bbbbbbb	1,,,100
00 00 2A	0aaaaaaa	Reverb 2: Gate Release Time
00 00 2B#	0bbbbbbb	1,,,100
00 00 2C	0aaaaaaa	Reverb 2: Gate Hold Time
00 00 2D#	0bbbbbbb	1,,,100
00 00 2E	0aaaaaaa	EQ: Low EQ Type
00 00 2F#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 30	0aaaaaaa	EQ: Low EQ Gain
00 00 31#	0bbbbbbb	-12,,,12dB
00 00 32	0aaaaaaa	EQ: Low EQ Frequency
00 00 33#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 34	0aaaaaaa	EQ: Low EQ Q
00 00 35#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 36	0aaaaaaa	EQ: Mid EQ Gain
00 00 37#	0bbbbbbb	-12,,,12dB
00 00 38	0aaaaaaa	EQ: Mid EQ Frequency
00 00 39#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 3A	0aaaaaaa	EQ: Mid EQ Q
00 00 3B#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3C	0aaaaaaa	EQ: High EQ Type
00 00 3D#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 3E	0aaaaaaa	EQ: High EQ Gain
00 00 3F#	0bbbbbbb	-12,,,12dB
00 00 40	0aaaaaaa	EQ: High EQ Frequency
00 00 41#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 42	0aaaaaaa	EQ: High EQ Q
00 00 43#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 44	0aaaaaaa	EQ: Out Level
00 00 45#	0bbbbbbb	0,,,100
00 00 46	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 21 Space Chorus

00 00 0E	0aaaaaaa	Chorus SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Chorus: Input Mode
00 00 11#	0bbbbbbb	0,1 = Mono,Stereo
00 00 12	0aaaaaaa	Chorus: Mode
00 00 13#	0bbbbbbb	0,,,6 = 1,2,3,4,1+4,2+4,3+4
00 00 14	0aaaaaaa	Chorus: Mix Balance
00 00 15#	0bbbbbbb	0,,,100
00 00 16	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 22 Lo-Fi Processor

00 00 0E	0aaaaaaa	Lo-Fi Processor SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Realtime Modify Filter SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Lo-Fi Processor: Pre Filter SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	Lo-Fi Processor: Rate
00 00 15#	0bbbbbbb	0,,,31 = 0ff,1/2,,,1/32
00 00 16	0aaaaaaa	Lo-Fi Processor: Number of Bit
00 00 17#	0bbbbbbb	0,,,15 = Off,15,,,1bit
00 00 18	0aaaaaaa	Lo-Fi Processor: Post Filter SW
00 00 19#	0bbbbbbb	0,1 = Off,On
00 00 1A	0aaaaaaa	Lo-Fi Processor: Effect Level
00 00 1B#	0bbbbbbb	0,,,100
00 00 1C	0aaaaaaa	Lo-Fi Processor: Direct Level
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Realtime Modify Filter: Filter Type
00 00 1F#	0bbbbbbb	0,,,2 = LPF,BPF,HPF
00 00 20	0aaaaaaa	Realtime Modify Filter: Cut Off
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Realtime Modify Filter: Resonance
00 00 23#	0bbbbbbb	0,,,100
00 00 24	0aaaaaaa	Realtime Modify Filter: Gain
00 00 25#	0bbbbbbb	0,,,24dB
00 00 26	0aaaaaaa	Noise Suppressor: Threshold
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Noise Suppressor: Release
00 00 29#	0bbbbbbb	0,,,100
00 00 2A	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 23 4 Band Parametric EQ

00 00 0E	0aaaaaaa	Parametric EQ Link SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Parametric EQ Ach SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Parametric EQ Bch SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	EQ Ach: Input Level
00 00 15#	0bbbbbbb	-60,,,12dB
00 00 16	0aaaaaaa	EQ Ach: Low EQ Type
00 00 17#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 18	0aaaaaaa	EQ Ach: Low EQ Gain
00 00 19#	0bbbbbbb	-12,,,12dB
00 00 1A	0aaaaaaa	EQ Ach: Low EQ Frequency
00 00 1B#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 1C	0aaaaaaa	EQ Ach: Low EQ Q
00 00 1D#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 1E	0aaaaaaa	EQ Ach: Low Mid EQ Gain
00 00 1F#	0bbbbbbb	-12,,,12dB
00 00 20	0aaaaaaa	EQ Ach: Low Mid EQ Frequency
00 00 21#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 22	0aaaaaaa	EQ Ach: Low Mid EQ Q
00 00 23#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 24	0aaaaaaa	EQ Ach: High Mid EQ Gain
00 00 25#	0bbbbbbb	-12,,,12dB
00 00 26	0aaaaaaa	EQ Ach: High Mid EQ Frequency
00 00 27#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 28	0aaaaaaa	EQ Ach: High Mid EQ Q
00 00 29#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 2A	0aaaaaaa	EQ Ach: High EQ Type
00 00 2B#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 2C	0aaaaaaa	EQ Ach: High EQ Gain
00 00 2D#	0bbbbbbb	-12,,,12dB
00 00 2E	0aaaaaaa	EQ Ach: High EQ Frequency
00 00 2F#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 30	0aaaaaaa	EQ Ach: High EQ Q
00 00 31#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 32	0aaaaaaa	EQ Ach: Output Level
00 00 33#	0bbbbbbb	-60,,,12dB
00 00 34	0aaaaaaa	EQ Bch: Input Level
00 00 35#	0bbbbbbb	-60,,,12dB
00 00 36	0aaaaaaa	EQ Bch: Low EQ Type
00 00 37#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 38	0aaaaaaa	EQ Bch: Low EQ Gain
00 00 39#	0bbbbbbb	-12,,,12dB
00 00 3A	0aaaaaaa	EQ Bch: Low EQ Frequency
00 00 3B#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 3C	0aaaaaaa	EQ Bch: Low EQ Q
00 00 3D#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 3E	0aaaaaaa	EQ Bch: Low Mid EQ Gain
00 00 3F#	0bbbbbbb	-12,,,12dB
00 00 40	0aaaaaaa	EQ Bch: Low Mid EQ Frequency
00 00 41#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 42	0aaaaaaa	EQ Bch: Low Mid EQ Q
00 00 43#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 44	0aaaaaaa	EQ Bch: High Mid EQ Gain
00 00 45#	0bbbbbbb	-12,,,12dB
00 00 46	0aaaaaaa	EQ Bch: High Mid EQ Frequency
00 00 47#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 48	0aaaaaaa	EQ Bch: High Mid EQ Q
00 00 49#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 4A	0aaaaaaa	EQ Bch: High EQ Type
00 00 4B#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 4C	0aaaaaaa	EQ Bch: High EQ Gain
00 00 4D#	0bbbbbbb	-12,,,12dB
00 00 4E	0aaaaaaa	EQ Bch: High EQ Frequency
00 00 4F#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 50	0aaaaaaa	EQ Bch: High EQ Q
00 00 51#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 52	0aaaaaaa	EQ Bch: Output Level
00 00 53#	0bbbbbbb	-60,,,12dB
00 00 54	00	(Reserved)

:	:	
00 00 7F	00	

* When Link SW = On, Bch corresponds to Ach.

❍Algorithm 24 10 Band Graphic EQ

00 00 0E	0aaaaaaa	Graphic EQ Link SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Graphic EQ Ach SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Graphic EQ Bch SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	EQ Ach: Input Gain
00 00 15#	0bbbbbbb	-60,,,12dB
00 00 16	0aaaaaaa	EQ Ach: 31.25Hz Gain
00 00 17#	0bbbbbbb	-15,,,15dB
00 00 18	0aaaaaaa	EQ Ach: 62.5Hz Gain
00 00 19#	0bbbbbbb	-15,,,15dB
00 00 1A	0aaaaaaa	EQ Ach: 125Hz Gain
00 00 1B#	0bbbbbbb	-15,,,15dB
00 00 1C	0aaaaaaa	EQ Ach: 250Hz Gain
00 00 1D#	0bbbbbbb	-15,,,15dB
00 00 1E	0aaaaaaa	EQ Ach: 500Hz Gain
00 00 1F#	0bbbbbbb	-15,,,15dB
00 00 20	0aaaaaaa	EQ Ach: 1.0kHz Gain
00 00 21#	0bbbbbbb	-15,,,15dB
00 00 22	0aaaaaaa	EQ Ach: 2.0kHz Gain
00 00 23#	0bbbbbbb	-15,,,15dB
00 00 24	0aaaaaaa	EQ Ach: 4.0kHz Gain
00 00 25#	0bbbbbbb	-15,,,15dB
00 00 26	0aaaaaaa	EQ Ach: 8.0kHz Gain
00 00 27#	0bbbbbbb	-15,,,15dB
00 00 28	0aaaaaaa	EQ Ach: 16.0kHz Gain
00 00 29#	0bbbbbbb	-15,,,15dB
00 00 2A	0aaaaaaa	EQ Ach: Output Level
00 00 2B#	0bbbbbbb	-60,,,12dB
00 00 2C	0aaaaaaa	EQ Bch: Input Gain
00 00 2D#	0bbbbbbb	-60,,,12dB
00 00 2E	0aaaaaaa	EQ Bch: 31.25Hz Gain
00 00 2F#	0bbbbbbb	-15,,,15dB
00 00 30	0aaaaaaa	EQ Bch: 62.5Hz Gain
00 00 31#	0bbbbbbb	-15,,,15dB
00 00 32	0aaaaaaa	EQ Bch: 125Hz Gain
00 00 33#	0bbbbbbb	-15,,,15dB
00 00 34	0aaaaaaa	EQ Bch: 250Hz Gain
00 00 35#	0bbbbbbb	-15,,,15dB
00 00 36	0aaaaaaa	EQ Bch: 500Hz Gain
00 00 37#	0bbbbbbb	-15,,,15dB
00 00 38	0aaaaaaa	EQ Bch: 1.0kHz Gain
00 00 39#	0bbbbbbb	-15,,,15dB
00 00 3A	0aaaaaaa	EQ Bch: 2.0kHz Gain
00 00 3B#	0bbbbbbb	-15,,,15dB
00 00 3C	0aaaaaaa	EQ Bch: 4.0kHz Gain
00 00 3D#	0bbbbbbb	-15,,,15dB
00 00 3E	0aaaaaaa	EQ Bch: 8.0kHz Gain
00 00 3F#	0bbbbbbb	-15,,,15dB
00 00 40	0aaaaaaa	EQ Bch: 16.0kHz Gain
00 00 41#	0bbbbbbb	-15,,,15dB
00 00 42	0aaaaaaa	EQ Bch: Output Level
00 00 43#	0bbbbbbb	-60,,,12dB
00 00 44	00	(Reserved)
:	:	
00 00 7F	00	

* When Link SW = On, Bch corresponds to Ach.

❍Algorithm 25 Hum Canceler

00 00 0E	0aaaaaaa	Hum Canceler SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Noise Suppressor SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Hum Canceler: Freq
00 00 13#	0bbbbbbb	200,,,8000 = 20.0,,,800.0Hz
00 00 14	0aaaaaaa	Hum Canceler: Width
00 00 15#	0bbbbbbb	10,,,40%
00 00 16	0aaaaaaa	Hum Canceler: Depth
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Hum Canceler: Threshold
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Hum Canceler: Range Low
00 00 1B#	0bbbbbbb	1,,,200 = Unlimit,20,,,2000Hz
00 00 1C	0aaaaaaa	Hum Canceler: Range High
00 00 1D#	0bbbbbbb	10,,,201 = 1.0,,,20,0kHz,Unlimit
00 00 1E	0aaaaaaa	Noise Suppressor: Threshold
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Noise Suppressor: Release
00 00 21#	0bbbbbbb	0,,,100
00 00 22	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 26 Vocal Canceler

00 00 0E	0aaaaaaa	Vocal Canceler SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	EQ SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Vocal Canceler: Balance
00 00 13#	0bbbbbbb	0,,,100
00 00 14	0aaaaaaa	Vocal Canceler: Range Low
00 00 15#	0bbbbbbb	1,,,200 = Unlimit,20,,,2000Hz
00 00 16	0aaaaaaa	Vocal Canceler: Range High
00 00 17#	0bbbbbbb	10,,,201 = 1.0,,,20,0kHz,Unlimit
00 00 18	0aaaaaaa	EQ: Low EQ Type
00 00 19#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 1A	0aaaaaaa	EQ: Low EQ Gain
00 00 1B#	0bbbbbbb	-12,,,12dB

00 00 1C	0aaaaaaa	EQ: Low EQ Frequency
00 00 1D#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 1E	0aaaaaaa	EQ: Low EQ Q
00 00 1F#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 20	0aaaaaaa	EQ: Mid EQ Gain
00 00 21#	0bbbbbbb	-12,,,12dB
00 00 22	0aaaaaaa	EQ: Mid EQ Frequency
00 00 23#	0bbbbbbb	20,,,800 = 200,,,8000Hz
00 00 24	0aaaaaaa	EQ: Mid EQ Q
00 00 25#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 26	0aaaaaaa	EQ: High EQ Type
00 00 27#	0bbbbbbb	0,1 = Shelving, Peaking
00 00 28	0aaaaaaa	EQ: High EQ Gain
00 00 29#	0bbbbbbb	-12,,,12dB
00 00 2A	0aaaaaaa	EQ: High EQ Frequency
00 00 2B#	0bbbbbbb	14,,,200 = 1.4,,,20.0kHz
00 00 2C	0aaaaaaa	EQ: High EQ Q
00 00 2D#	0bbbbbbb	3,,,100 = 0.3,,,10.0
00 00 2E	0aaaaaaa	EQ: Out Level
00 00 2F#	0bbbbbbb	0,,,100
00 00 30	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 27 Voice Transformer (FX1, FX3, FX5 or FX7)

00 00 0E	0aaaaaaa	Voice Transformer SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Reverb SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	00	(Reserved)
00 00 13#	00	
00 00 14	00	(Reserved)
00 00 15#	00	
00 00 16	0aaaaaaa	Voice Transformer: Robot SW
00 00 17#	0bbbbbbb	0,1 = Off,On
00 00 18	0aaaaaaa	Voice Transformer: Chromatic Pitch
00 00 19#	0bbbbbbb	-12,,,36
00 00 1A	0aaaaaaa	Voice Transformer: Fine Pitch
00 00 1B#	0bbbbbbb	-100,,,100
00 00 1C	0aaaaaaa	Voice Transformer: Chromatic Formant
00 00 1D#	0bbbbbbb	-12,,,12
00 00 1E	0aaaaaaa	Voice Transformer: Fine Formant
00 00 1F#	0bbbbbbb	-100,,,100
00 00 20	0aaaaaaa	Voice Transformer: Mix Balance
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Reverb: Reverb Time
00 00 23#	0bbbbbbb	1,,,100 = 0.1,,,10.0sec
00 00 24	0aaaaaaa	Reverb: Pre Delay
00 00 25#	0bbbbbbb	0,,,200msec
00 00 26	0aaaaaaa	Reverb: Density
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Reverb: Effect Level
00 00 29#	0bbbbbbb	0,,,100
00 00 2A	00	(Reserved)
:		:
00 00 7F	00	

❍Algorithm 28 Vocoder 2 (FX1, FX3, FX5 or FX7)

00 00 0E	0aaaaaaa	Chorus SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Vocoder: Envelope Mode
00 00 11#	0bbbbbbb	0,,,2 = Sharp,Soft,Long
00 00 12	0aaaaaaa	Vocoder: Pan Mode
00 00 13#	0bbbbbbb	0,,,3 = Mono,Stereo,L->R,R->L
00 00 14	0aaaaaaa	Vocoder: Hold
00 00 15#	0bbbbbbb	0,1 = Off,On
00 00 16	0aaaaaaa	Vocoder: Mic Sens
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Vocoder: Synth Input Level
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Vocoder: Voice Char Level 1
00 00 1B#	0bbbbbbb	0,,,100
00 00 1C	0aaaaaaa	Vocoder: Voice Char Level 2
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Vocoder: Voice Char Level 3
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Vocoder: Voice Char Level 4
00 00 21#	0bbbbbbb	0,,,100
00 00 22	0aaaaaaa	Vocoder: Voice Char Level 5
00 00 23#	0bbbbbbb	0,,,100
00 00 24	0aaaaaaa	Vocoder: Voice Char Level 6
00 00 25#	0bbbbbbb	0,,,100
00 00 26	0aaaaaaa	Vocoder: Voice Char Level 7
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Vocoder: Voice Char Level 8
00 00 29#	0bbbbbbb	0,,,100
00 00 2A	0aaaaaaa	Vocoder: Voice Char Level 9
00 00 2B#	0bbbbbbb	0,,,100
00 00 2C	0aaaaaaa	Vocoder: Voice Char Level 10
00 00 2D#	0bbbbbbb	0,,,100
00 00 2E	0aaaaaaa	Vocoder: Voice Char Level 11
00 00 2F#	0bbbbbbb	0,,,100
00 00 30	0aaaaaaa	Vocoder: Voice Char Level 12
00 00 31#	0bbbbbbb	0,,,100
00 00 32	0aaaaaaa	Vocoder: Voice Char Level 13
00 00 33#	0bbbbbbb	0,,,100
00 00 34	0aaaaaaa	Vocoder: Voice Char Level 14
00 00 35#	0bbbbbbb	0,,,100
00 00 36	0aaaaaaa	Vocoder: Voice Char Level 15
00 00 37#	0bbbbbbb	0,,,100
00 00 38	0aaaaaaa	Vocoder: Voice Char Level 16
00 00 39#	0bbbbbbb	0,,,100
00 00 3A	0aaaaaaa	Vocoder: Voice Char Level 17
00 00 3B#	0bbbbbbb	0,,,100
00 00 3C	0aaaaaaa	Vocoder: Voice Char Level 18

00 00 3D#	0bbbbbbb	0,,,100
00 00 3E	0aaaaaaa	Vocoder: Voice Char Level 19
00 00 3F#	0bbbbbbb	0,,,100
00 00 40	0aaaaaaa	Vocoder: Mic High Pass Filter
00 00 41#	0bbbbbbb	9,,,200 = Thru,1.0,,,20.0kHz
00 00 42	0aaaaaaa	Vocoder: Mic High Pass Filter Pan
00 00 43#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 44	0aaaaaaa	Vocoder: Mic Mix
00 00 45#	0bbbbbbb	0,,,100
00 00 46	0aaaaaaa	Vocoder: Noise Suppressor Threshold
00 00 47#	0bbbbbbb	0,,,100
00 00 48	0aaaaaaa	Chorus: Rate
00 00 49#	0bbbbbbb	1,,,100 = 0.1,,,10.0Hz
00 00 4A	0aaaaaaa	Chorus: Depth
00 00 4B#	0bbbbbbb	0,,,100
00 00 4C	0aaaaaaa	Chorus: Pre Delay
00 00 4D#	0bbbbbbb	0,,,50ms
00 00 4E	0aaaaaaa	Chorus: Mix Balance
00 00 4F#	0bbbbbbb	0,,,100
00 00 50	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 29 Mic Simulator

00 00 0E	0aaaaaaa	Link SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Mic Converter Ach SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Bass Cut Ach SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	Distance Ach SW
00 00 15#	0bbbbbbb	0,1 = Off,On
00 00 16	0aaaaaaa	Limiter Ach SW
00 00 17#	0bbbbbbb	0,1 = Off,On
00 00 18	0aaaaaaa	Mic Converter Bch SW
00 00 19#	0bbbbbbb	0,1 = Off,On
00 00 1A	0aaaaaaa	Bass Cut Bch SW
00 00 1B#	0bbbbbbb	0,1 = Off,On
00 00 1C	0aaaaaaa	Distance Bch SW
00 00 1D#	0bbbbbbb	0,1 = Off,On
00 00 1E	0aaaaaaa	Limiter Bch SW
00 00 1F#	0bbbbbbb	0,1 = Off,On
00 00 20	0aaaaaaa	Mic Converter Ach: Input
00 00 21#	0bbbbbbb	0,,,4 = DR-20,SmlDy,HedDy,MinCn,Flat
00 00 22	0aaaaaaa	Mic Converter Ach: Output
00 00 23#	0bbbbbbb	0,,,6 = SmlDy,VocDy,LrgDy,SmlCn,LrgCn,VntCn,Flat
00 00 24	0aaaaaaa	Mic Converter Ach: Phase
00 00 25#	0bbbbbbb	0,1 = Normal,Inverse
00 00 26	0aaaaaaa	Bass Cut Ach: Bass Cut Frequency
00 00 27#	0bbbbbbb	1,,,200 = Thru,20,,,2000Hz
00 00 28	0aaaaaaa	Distance Ach: Proximity Effect
00 00 29#	0bbbbbbb	-12,,,+12
00 00 2A	0aaaaaaa	Distance Ach: Timelag
00 00 2B#	0bbbbbbb	0,,,1000 = 0,,,3000cm
00 00 2C	0aaaaaaa	Limiter Ach: Detect HPF Frequency
00 00 2D#	0bbbbbbb	1,,,200 = Thru,20,,,2000Hz
00 00 2E	0aaaaaaa	Limiter Ach: Level
00 00 2F#	0bbbbbbb	-60,,,24dB
00 00 30	0aaaaaaa	Limiter Ach: Threshold
00 00 31#	0bbbbbbb	-60,,,0dB
00 00 32	0aaaaaaa	Limiter Ach: Attack
00 00 33#	0bbbbbbb	0,,,100
00 00 34	0aaaaaaa	Limiter Ach: Release
00 00 35#	0bbbbbbb	0,,,100
00 00 36	0aaaaaaa	Mic Converter Bch: Input
00 00 37#	0bbbbbbb	0,,,4 = DR-20,SmlDy,HedDy,MinCn,Flat
00 00 38	0aaaaaaa	Mic Converter Bch: Output
00 00 39#	0bbbbbbb	0,,,6 = SmlDy,VocDy,LrgDy,SmlCn,LrgCn,VntCn,Flat
00 00 3A	0aaaaaaa	Mic Converter Bch: Phase
00 00 3B#	0bbbbbbb	0,1 = Normal,Inverse
00 00 3C	0aaaaaaa	Bass Cut Bch: Bass Cut Frequency
00 00 3D#	0bbbbbbb	1,,,200 = Thru,20,,,2000Hz
00 00 3E	0aaaaaaa	Distance Bch: Proximity Effect
00 00 3F#	0bbbbbbb	-12,,,+12
00 00 40	0aaaaaaa	Distance Bch: Timelag
00 00 41#	0bbbbbbb	0,,,1000 = 0,,,3000cm
00 00 42	0aaaaaaa	Limiter Bch: Detect HPF Frequency
00 00 43#	0bbbbbbb	1,,,200 = Thru,20,,,2000Hz
00 00 44	0aaaaaaa	Limiter Bch: Level
00 00 45#	0bbbbbbb	-60,,,24dB
00 00 46	0aaaaaaa	Limiter Bch: Threshold
00 00 47#	0bbbbbbb	-60,,,0dB
00 00 48	0aaaaaaa	Limiter Bch: Attack
00 00 49#	0bbbbbbb	0,,,100
00 00 4A	0aaaaaaa	Limiter Bch: Release
00 00 4B#	0bbbbbbb	0,,,100
00 00 4C	00	(Reserved)
:	:	
00 00 7F	00	

* When Mic Converter Input = MinCn, Output is fixed to SmlDy or LrgCn.
* When Link SW = On, Bch corresponds to Ach.

❍Algorithm 30 3 Band Isolator

00 00 0E	0aaaaaaa	Isolator SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Isolator High Volume
00 00 11#	0bbbbbbb	-60,,,+4dB
00 00 12	0aaaaaaa	Isolator Middle Volume
00 00 13#	0bbbbbbb	-60,,,+4dB
00 00 14	0aaaaaaa	Isolator Low Volume
00 00 15#	0bbbbbbb	-60,,,+4dB
00 00 16	0aaaaaaa	Isolator Anti Phase Middle Switch
00 00 17#	0bbbbbbb	0,1 = Off,On
00 00 18	0aaaaaaa	Isolator Anti Phase Middle Level
00 00 19#	0bbbbbbb	0,,,100

00 00 1A	0aaaaaaa	Isolator Anti Phase Low Switch
00 00 1B#	0bbbbbbb	0,1 = Off,On
00 00 1C	0aaaaaaa	Isolator Anti Phase Low Level
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 31 Tape Echo 201

00 00 0E	0aaaaaaa	Tape Echo SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Tape Echo Mode Select
00 00 11#	0bbbbbbb	0,,,6 = 1,,,7
00 00 12	0aaaaaaa	Tape Echo Repeat Rate
00 00 13#	0bbbbbbb	0,,,100
00 00 14	0aaaaaaa	Tape Echo Intensity
00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Tape Echo Effect Level
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Tape Echo Direct Level
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Tape Echo Tone Bass
00 00 1B#	0bbbbbbb	-100,,,100
00 00 1C	0aaaaaaa	Tape Echo Tone Treble
00 00 1D#	0bbbbbbb	-100,,,100
00 00 1E	0aaaaaaa	Tape Echo Tape Head S Pan
00 00 1F#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 20	0aaaaaaa	Tape Echo Tape Head M Pan
00 00 21#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 22	0aaaaaaa	Tape Echo Tape Head L Pan
00 00 23#	0bbbbbbb	1,,,127 = L63,,,R63
00 00 24	0aaaaaaa	Tape Echo Tape Distortion
00 00 25#	0bbbbbbb	0,,,100
00 00 26	0aaaaaaa	Tape Echo Wah Flutter Rate
00 00 27#	0bbbbbbb	0,,,100
00 00 28	0aaaaaaa	Tape Echo Wah Flutter Depth
00 00 29#	0bbbbbbb	0,,,100
00 00 2A	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 32 Analog Flanger

00 00 0E	0aaaaaaa	Analog Flanger SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Analog Flanger Mode
00 00 11#	0bbbbbbb	0,,,3 = FL1,FL2,FL3,CHO
00 00 12	0aaaaaaa	Analog Flanger Feedback
00 00 13#	0bbbbbbb	0,,,100
00 00 14	0aaaaaaa	Analog Flanger Modulation Rate
00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Analog Flanger Modulation Depth
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Analog Flanger Modulation Frequency
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Analog Flanger Channel B Modulation
00 00 1B#	0bbbbbbb	0,1 = Nor,Inv
00 00 1C	0aaaaaaa	Analog Flanger Channel A Phase
00 00 1D#	0bbbbbbb	0,1 = Nor,Inv
00 00 1E	0aaaaaaa	Analog Flanger Channel B Phase
00 00 1F#	0bbbbbbb	0,1 = Nor,Inv
00 00 20	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 33 Analog Phaser

00 00 0E	0aaaaaaa	Analog Phaser SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Analog Phaser Mode
00 00 11#	0bbbbbbb	0,1 = 4STAGE,8STAGE
00 00 12	0aaaaaaa	Analog Phaser Frequency
00 00 13#	0bbbbbbb	0,,,100
00 00 14	0aaaaaaa	Analog Phaser Resonance
00 00 15#	0bbbbbbb	0,,,100
00 00 16	0aaaaaaa	Analog Phaser LFO 1 Rate
00 00 17#	0bbbbbbb	0,,,100
00 00 18	0aaaaaaa	Analog Phaser LFO 1 Depth
00 00 19#	0bbbbbbb	0,,,100
00 00 1A	0aaaaaaa	Analog Phaser LFO 1 Channel B Mod
00 00 1B#	0bbbbbbb	0,1 = Nor,Inv
00 00 1C	0aaaaaaa	Analog Phaser LFO 2 Rate
00 00 1D#	0bbbbbbb	0,,,100
00 00 1E	0aaaaaaa	Analog Phaser LFO 2 Depth
00 00 1F#	0bbbbbbb	0,,,100
00 00 20	0aaaaaaa	Analog Phaser LFO 2 Channel B Mod
00 00 21#	0bbbbbbb	0,1 = Nor,Inv
00 00 22	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 34 FFT (FX1, FX3, FX5 or FX7)

00 00 0E	00	(Reserved)
:	:	
00 00 7F	00	

❍Algorithm 35 Speaker Modeling / Master Effect Algorithm 0

00 00 0E	0aaaaaaa	Speaker Modeling SW
00 00 0F#	0bbbbbbb	0,1 = Off,On
00 00 10	0aaaaaaa	Bass Cut SW
00 00 11#	0bbbbbbb	0,1 = Off,On
00 00 12	0aaaaaaa	Low Frequency Trimmer SW
00 00 13#	0bbbbbbb	0,1 = Off,On
00 00 14	0aaaaaaa	High Frequency Trimmer SW
00 00 15#	0bbbbbbb	0,1 = Off,On
00 00 16	0aaaaaaa	Limiter SW
00 00 17#	0bbbbbbb	0,1 = Off,On

00 00 18	0aaaaaaa	Output Speaker
00 00 19#	0bbbbbbb	0,,,5 = DS-90,MS-50,SST-151,SST-251, SST151+351,SST251+351
00 00 1A	0aaaaaaa	Modeling Speaker
00 00 1B#	0bbbbbbb	0,,,13 = THRU,Super Flat,Powered GenBlk, Powered E-Bas,Powered Mack,Small Cube,White Cone, White C +tissue,Small Radio,Small TV,Boom Box, BoomBox LoBoost,Powerd SR,Powerd SR Stack
00 00 1C	0aaaaaaa	Speaker Modeling Phase
00 00 1D#	0bbbbbbb	0,1 = NRM,INV
00 00 1E	0aaaaaaa	Bass Cut Frequency
00 00 1F#	0bbbbbbb	1,,,200 = Thru,20,,,2000Hz
00 00 20	0aaaaaaa	Low Frequency Trimmer Gain
00 00 21#	0bbbbbbb	-12,,,12dB
00 00 22	0aaaaaaa	Low Frequency Trimmer Frequency
00 00 23#	0bbbbbbb	2,,,200 = 20,,,2000Hz
00 00 24	0aaaaaaa	High Frequency Trimmer Gain
00 00 25#	0bbbbbbb	-12,,,12dB
00 00 26	0aaaaaaa	High Frequency Trimmer Frequency
00 00 27#	0bbbbbbb	10,,,200 = 1.0,,,20.0kHz
00 00 28	0aaaaaaa	Limiter Threshold
00 00 29#	0bbbbbbb	-60,,,0dB
00 00 2A	0aaaaaaa	Limiter Release
00 00 2B#	0bbbbbbb	0,,,100
00 00 2C	0aaaaaaa	Limiter Level
00 00 2D#	0bbbbbbb	-60,,,24dB
00 00 2E	00	(Reserved)
:		:
00 00 7F	00	

* When Output Speaker = 0 (DS-90), Modeling Speaker is fixed to 0 - 11.
* When Output Speaker = 1 (MS-50), Modeling Speaker is fixed to 0, 1.
* When Output Speaker = 2 (SST-151), Modeling Speaker is fixed to 0, 1, 12.
* When Output Speaker = 3 (SST-251), Modeling Speaker is fixed to 0, 1, 12.
* When Output Speaker = 4 (SST-151+351), Modeling Speaker is fixed to 0, 1, 13.
* When Output Speaker = 5 (SST-251+351), Modeling Speaker is fixed to 0, 1, 13.

❍Algorithm 36 Mastering Tool Kit (FX1, FX3, FX5 or FX7)

00 00 0E	00 - 01	EQ SW	0,1 = Off,On
00 00 0F	00 - 01	Bass Cut SW	0,1 = Off,On
00 00 10	00 - 01	Enhancer SW	0,1 = Off,On
00 00 11	00 - 01	Expander SW	0,1 = Off,On
00 00 12	00 - 01	Compressor SW	0,1 = Off,On
00 00 13	00 - 01	Limiter SW	0,1 = Off,On
00 00 14	04 - 5E	EQ: Input Gain (*2)	-30.0,,,15.0dB
00 00 15	00 - 01	EQ: Low EQ Type	0,1 = Shelving, Peaking
00 00 16	22 - 5E	EQ: Low EQ Gain (*2)	-15.0,,,15.0dB
00 00 17	04 - 54	EQ: Low EQ Frequency (*1)	20.0,,,2.00kHz
00 00 18	00 - 21	EQ: Low EQ Q (*3)	0.355,,,16.0
00 00 19	22 - 5E	EQ: Low Mid EQ Gain (*2)	-15.0,,,15.0dB
00 00 1A	04 - 7C	EQ: Low Mid EQ Frequency (*1)	20.0,,,20.0kHz
00 00 1B	00 - 21	EQ: Low Mid EQ Q (*3)	0.355,,,16.0
00 00 1C	22 - 5E	EQ: High Mid EQ Gain (*2)	-15.0,,,15.0dB
00 00 1D	04 - 7C	EQ: High Mid EQ Frequency (*1)	20.0,,,20.0kHz
00 00 1E	00 - 21	EQ: High Mid EQ Q (*3)	0.355,,,16.0
00 00 1F	00 - 01	EQ: High EQ Type	0,1 = Shelving, Peaking
00 00 20	22 - 5E	EQ: High EQ Gain (*2)	-15.0,,,15.0dB
00 00 21	48 - 7C	EQ: High EQ Frequency (*1)	1.00k,,,20.0kHz
00 00 22	00 - 21	EQ: High EQ Q (*3)	0.355,,,16.0
00 00 23	04 - 5E	EQ: Level (*2)	-30.0,,,15.0dB
00 00 24	03 - 54	Bass Cut Frequency (*1)	Thru/20.0,,,2.00kHz
00 00 25	00 - 64	Enhancer Sens	0,,,100
00 00 26	48 - 70	Enhancer Frequency (*1)	1.0k,,,10.0kHz
00 00 27	38 - 5C	Enhancer Mix Level	(0dB:80[50H]) -24,,,12dB
00 00 28	38 - 5C	Input Gain	(0dB:80[50H]) -24,,,12dB
00 00 29	00 - 0A	Input Detect Time	0,,,10ms
00 00 2A	04 - 44	Input Low Split Point (*1)	20.0,,,800Hz
00 00 2B	50 - 78	Input High Split Point (*1)	1.6k,,,16.0kHz
00 00 2C	00 - 50	Expander Low Threshold	(0dB:80[50H]) -80,,,0dB
00 00 2D	00 - 50	Expander Mid Threshold	(0dB:80[50H]) -80,,,0dB
00 00 2E	00 - 50	Expander High Threshold	(0dB:80[50H]) -80,,,0dB
00 00 2F	00 - 0D	Expander Low Ratio (*4)	1:1.0,,,1:INF
00 00 30	00 - 0D	Expander Mid Ratio (*4)	1:1.0,,,1:INF
00 00 31	00 - 0D	Expander High Ratio (*4)	1:1.0,,,1:INF
00 00 32	00 - 64	Expander Low Attack	0,,,100ms
00 00 33	00 - 64	Expander Mid Attack	0,,,100ms
00 00 34	00 - 64	Expander High Attack	0,,,100ms
00 00 35	00 - 64	Expander Low Release (*5)	50,,,5000ms
00 00 36	00 - 64	Expander Mid Release (*5)	50,,,5000ms
00 00 37	00 - 64	Expander High Release (*5)	50,,,5000ms
00 00 38	38 - 50	Compressor Low Threshold	(0dB:80[50H]) -24,,,0dB
00 00 39	38 - 50	Compressor Mid Threshold	(0dB:80[50H]) -24,,,0dB
00 00 3A	38 - 50	Compressor High Threshold	(0dB:80[50H]) -24,,,0dB
00 00 3B	00 - 0D	Compressor Low Ratio (*4)	1:1.0,,,1:INF
00 00 3C	00 - 0D	Compressor Mid Ratio (*4)	1:1.0,,,1:INF
00 00 3D	00 - 0D	Compressor High Ratio (*4)	1:1.0,,,1:INF
00 00 3E	00 - 64	Compressor Low Attack	0,,,100ms
00 00 3F	00 - 64	Compressor Mid Attack	0,,,100ms
00 00 40	00 - 64	Compressor High Attack	0,,,100ms
00 00 41	00 - 64	Compressor Low Release (*5)	50,,,5000ms
00 00 42	00 - 64	Compressor Mid Release (*5)	50,,,5000ms

00 00 43	00 - 64	Compressor High Release (*5)	50,,,5000ms
00 00 44	00 - 56	Mixer Low Level	(0dB:80[50H]) -80,,,6dB
00 00 45	00 - 56	Mixer Mid Level	(0dB:80[50H]) -80,,,6dB
00 00 46	00 - 56	Mixer High Level	(0dB:80[50H]) -80,,,6dB
00 00 47	38 - 50	Limiter Threshold	(0dB:80[50H]) -24,,,0dB
00 00 48	00 - 64	Limiter Attack	0,,,100ms
00 00 49	00 - 64	Limiter Release (*5)	50,,,5000ms
00 00 4A	00 - 56	Output Level	(0dB:80[50H]) -80,,,6dB
00 00 4B	00 - 01	Output Soft Clip	0,1 = Off,On
00 00 4C	00	(Reserved)	
:		:	
00 00 7F	00		

(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*2) See “MIDI Data - Mixer EQ Gain Table.”
(*3) See “MIDI Data - Mixer EQ Quality Table.”
(*4) See “MIDI Data - EXP / CMP Ratio Table.”
(*5) Time (ms) = 50.0 x pow (100.0, Data / 100.0)

❍Algorithm 37 31Band Graphic Equalizer (FX1, FX3, FX5 or FX7)

00 00 0E	00 - 01	Link SW	0,1 = Off,On
00 00 0F	00 - 01	Ach Bass Cut SW	0,1 = Off,On
00 00 10	00 - 01	Ach EQ SW	0,1 = Off,On
00 00 11	00 - 01	Bch Bass Cut SW	0,1 = Off,On
00 00 12	00 - 01	Bch EQ SW	0,1 = Off,On
00 00 13	03 - 54	Ach Bass Cut Frequency (*1)	Thru/20.0,,,2.00kHz
00 00 14	04 - 5E	Ach EQ Input Level (*2)	-30.0,,,15.0dB
00 00 15	22 - 5E	Ach EQ Band1 Gain (20.0Hz) (*2)	-15.0,,,15.0dB
00 00 16	22 - 5E	Ach EQ Band2 Gain (25.0Hz) (*2)	-15.0,,,15.0dB
00 00 17	22 - 5E	Ach EQ Band3 Gain (31.5Hz) (*2)	-15.0,,,15.0dB
00 00 18	22 - 5E	Ach EQ Band4 Gain (40.0Hz) (*2)	-15.0,,,15.0dB
00 00 19	22 - 5E	Ach EQ Band5 Gain (50.0Hz) (*2)	-15.0,,,15.0dB
00 00 1A	22 - 5E	Ach EQ Band6 Gain (63.0Hz) (*2)	-15.0,,,15.0dB
00 00 1B	22 - 5E	Ach EQ Band7 Gain (80.0Hz) (*2)	-15.0,,,15.0dB
00 00 1C	22 - 5E	Ach EQ Band8 Gain (100Hz) (*2)	-15.0,,,15.0dB
00 00 1D	22 - 5E	Ach EQ Band9 Gain (125Hz) (*2)	-15.0,,,15.0dB
00 00 1E	22 - 5E	Ach EQ Band10 Gain (160Hz) (*2)	-15.0,,,15.0dB
00 00 1F	22 - 5E	Ach EQ Band11 Gain (200Hz) (*2)	-15.0,,,15.0dB
00 00 20	22 - 5E	Ach EQ Band12 Gain (250Hz) (*2)	-15.0,,,15.0dB
00 00 21	22 - 5E	Ach EQ Band13 Gain (315Hz) (*2)	-15.0,,,15.0dB
00 00 22	22 - 5E	Ach EQ Band14 Gain (400Hz) (*2)	-15.0,,,15.0dB
00 00 23	22 - 5E	Ach EQ Band15 Gain (500Hz) (*2)	-15.0,,,15.0dB
00 00 24	22 - 5E	Ach EQ Band16 Gain (630Hz) (*2)	-15.0,,,15.0dB
00 00 25	22 - 5E	Ach EQ Band17 Gain (800Hz) (*2)	-15.0,,,15.0dB
00 00 26	22 - 5E	Ach EQ Band18 Gain (1.00kHz) (*2)	-15.0,,,15.0dB
00 00 27	22 - 5E	Ach EQ Band19 Gain (1.25kHz) (*2)	-15.0,,,15.0dB
00 00 28	22 - 5E	Ach EQ Band20 Gain (1.60kHz) (*2)	-15.0,,,15.0dB
00 00 29	22 - 5E	Ach EQ Band21 Gain (2.00kHz) (*2)	-15.0,,,15.0dB
00 00 2A	22 - 5E	Ach EQ Band22 Gain (2.50kHz) (*2)	-15.0,,,15.0dB
00 00 2B	22 - 5E	Ach EQ Band23 Gain (3.15kHz) (*2)	-15.0,,,15.0dB
00 00 2C	22 - 5E	Ach EQ Band24 Gain (4.00kHz) (*2)	-15.0,,,15.0dB
00 00 2D	22 - 5E	Ach EQ Band25 Gain (5.00kHz) (*2)	-15.0,,,15.0dB
00 00 2E	22 - 5E	Ach EQ Band26 Gain (6.30kHz) (*2)	-15.0,,,15.0dB
00 00 2F	22 - 5E	Ach EQ Band27 Gain (8.00kHz) (*2)	-15.0,,,15.0dB
00 00 30	22 - 5E	Ach EQ Band28 Gain (10.0kHz) (*2)	-15.0,,,15.0dB
00 00 31	22 - 5E	Ach EQ Band29 Gain (12.5kHz) (*2)	-15.0,,,15.0dB
00 00 32	22 - 5E	Ach EQ Band30 Gain (16.0kHz) (*2)	-15.0,,,15.0dB
00 00 33	22 - 5E	Ach EQ Band31 Gain (20.0kHz) (*2)	-15.0,,,15.0dB
00 00 34	04 - 5E	Ach EQ Output Level (*2)	-30.0,,,15.0dB
00 00 35	03 - 54	Bch Bass Cut Frequency (*1)	Thru/20.0,,,2.00kHz
00 00 36	04 - 5E	Bch EQ Input Level (*2)	-30.0,,,15.0dB
00 00 37	22 - 5E	Bch EQ Band1 Gain (20.0Hz) (*2)	-15.0,,,15.0dB
00 00 38	22 - 5E	Bch EQ Band2 Gain (25.0Hz) (*2)	-15.0,,,15.0dB
00 00 39	22 - 5E	Bch EQ Band3 Gain (31.5Hz) (*2)	-15.0,,,15.0dB
00 00 3A	22 - 5E	Bch EQ Band4 Gain (40.0Hz) (*2)	-15.0,,,15.0dB
00 00 3B	22 - 5E	Bch EQ Band5 Gain (50.0Hz) (*2)	-15.0,,,15.0dB
00 00 3C	22 - 5E	Bch EQ Band6 Gain (63.0Hz) (*2)	-15.0,,,15.0dB
00 00 3D	22 - 5E	Bch EQ Band7 Gain (80.0Hz) (*2)	-15.0,,,15.0dB
00 00 3E	22 - 5E	Bch EQ Band8 Gain (100Hz) (*2)	-15.0,,,15.0dB
00 00 3F	22 - 5E	Bch EQ Band9 Gain (125Hz) (*2)	-15.0,,,15.0dB
00 00 40	22 - 5E	Bch EQ Band10 Gain (160Hz) (*2)	-15.0,,,15.0dB
00 00 41	22 - 5E	Bch EQ Band11 Gain (200Hz) (*2)	-15.0,,,15.0dB
00 00 42	22 - 5E	Bch EQ Band12 Gain (250Hz) (*2)	-15.0,,,15.0dB
00 00 43	22 - 5E	Bch EQ Band13 Gain (315Hz) (*2)	-15.0,,,15.0dB
00 00 44	22 - 5E	Bch EQ Band14 Gain (400Hz) (*2)	-15.0,,,15.0dB
00 00 45	22 - 5E	Bch EQ Band15 Gain (500Hz) (*2)	-15.0,,,15.0dB
00 00 46	22 - 5E	Bch EQ Band16 Gain (630Hz) (*2)	-15.0,,,15.0dB
00 00 47	22 - 5E	Bch EQ Band17 Gain (800Hz) (*2)	-15.0,,,15.0dB
00 00 48	22 - 5E	Bch EQ Band18 Gain (1.00kHz) (*2)	-15.0,,,15.0dB
00 00 49	22 - 5E	Bch EQ Band19 Gain (1.25kHz) (*2)	-15.0,,,15.0dB
00 00 4A	22 - 5E	Bch EQ Band20 Gain (1.60kHz) (*2)	-15.0,,,15.0dB
00 00 4B	22 - 5E	Bch EQ Band21 Gain (2.00kHz) (*2)	-15.0,,,15.0dB
00 00 4C	22 - 5E	Bch EQ Band22 Gain (2.50kHz) (*2)	-15.0,,,15.0dB

00 00 4D	22 - 5E	Bch EQ Band23 Gain (3.15kHz) (*2)	-15.0,,,15.0dB
00 00 4E	22 - 5E	Bch EQ Band24 Gain (4.00kHz) (*2)	-15.0,,,15.0dB
00 00 4F	22 - 5E	Bch EQ Band25 Gain (5.00kHz) (*2)	-15.0,,,15.0dB
00 00 50	22 - 5E	Bch EQ Band26 Gain (6.30kHz) (*2)	-15.0,,,15.0dB
00 00 51	22 - 5E	Bch EQ Band27 Gain (8.00kHz) (*2)	-15.0,,,15.0dB
00 00 52	22 - 5E	Bch EQ Band28 Gain (10.0kHz) (*2)	-15.0,,,15.0dB
00 00 53	22 - 5E	Bch EQ Band29 Gain (12.5kHz) (*2)	-15.0,,,15.0dB
00 00 54	22 - 5E	Bch EQ Band30 Gain (16.0kHz) (*2)	-15.0,,,15.0dB
00 00 55	22 - 5E	Bch EQ Band31 Gain (20.0kHz) (*2)	-15.0,,,15.0dB
00 00 56	04 - 5E	Bch EQ Output Level (*2)	-30.0,,,15.0dB
00 00 57	00	(Reserved)	
:		:	
00 00 7F	00		

* When Link SW = On, Bch corresponds to Ach.
(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*2) See “MIDI Data - Mixer EQ Gain Table.”

❍Algorithm 38 Stereo 2Band Dynamics

00 00 0E	00 - 01	Bass Cut SW	0,1 = Off,On
00 00 0F	00 - 01	Enhancer SW	0,1 = Off,On
00 00 10	00 - 01	Expander SW	0,1 = Off,On
00 00 11	00 - 01	Compressor SW	0,1 = Off,On
00 00 12	00 - 01	Limiter SW	0,1 = Off,On
00 00 13	03 - 54	Bass Cut Frequency (*1)	Thru/20.0,,,2.00kHz
00 00 14	00 - 64	Enhancer Sens	0,,,100
00 00 15	48 - 70	Enhancer Frequency (*1)	1.0k,,,10.0kHz
00 00 16	38 - 5C	Enhancer Mix Level	(0dB:80[50H]) -24,,,12dB
00 00 17	38 - 5C	Input Gain	(0dB:80[50H]) -24,,,12dB
00 00 18	00 - 0A	Input Detect Time	0,,,10ms
00 00 19	04 - 78	Input Split Point (*1)	20.0,,,16.0kHz
00 00 1A	00 - 50	Expander Low Threshold	(0dB:80[50H]) -80,,,0dB
00 00 1B	00 - 50	Expander High Threshold	(0dB:80[50H]) -80,,,0dB
00 00 1C	00 - 0D	Expander Low Ratio (*4)	1:1.0,,,1:INF
00 00 1D	00 - 0D	Expander High Ratio (*4)	1:1.0,,,1:INF
00 00 1E	00 - 64	Expander Low Attack	0,,,100ms
00 00 1F	00 - 64	Expander High Attack	0,,,100ms
00 00 20	00 - 64	Expander Low Release (*5)	50,,,5000ms
00 00 21	00 - 64	Expander High Release (*5)	50,,,5000ms
00 00 22	38 - 50	Compressor Low Threshold	(0dB:80[50H]) -24,,,0dB
00 00 23	38 - 50	Compressor High Threshold	(0dB:80[50H]) -24,,,0dB
00 00 24	00 - 0D	Compressor Low Ratio (*4)	1:1.0,,,1:INF
00 00 25	00 - 0D	Compressor High Ratio (*4)	1:1.0,,,1:INF
00 00 26	00 - 64	Compressor Low Attack	0,,,100ms
00 00 27	00 - 64	Compressor High Attack	0,,,100ms
00 00 28	00 - 64	Compressor Low Release (*5)	50,,,5000ms
00 00 29	00 - 64	Compressor High Release (*5)	50,,,5000ms
00 00 2A	00 - 56	Mixer Low Level	(0dB:80[50H]) -80,,,6dB
00 00 2B	00 - 56	Mixer High Level	(0dB:80[50H]) -80,,,6dB
00 00 2C	38 - 50	Limiter Threshold	(0dB:80[50H]) -24,,,0dB
00 00 2D	00 - 64	Limiter Attack	0,,,100ms
00 00 2E	00 - 64	Limiter Release (*5)	50,,,5000ms
00 00 2F	00 - 56	Output Level	(0dB:80[50H]) -80,,,6dB
00 00 30	00 - 01	Output Soft Clip	0,1 = Off,On
00 00 31	00	(Reserved)	
:		:	
00 00 7F	00		

(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*4) See “MIDI Data - EXP / CMP Ratio Table.”
(*5) Time (ms) = 50.0 x pow (100.0, Data / 100.0)

❍Algorithm 39 Dual Mono Dynamics

00 00 0E	00 - 01	Link SW	0,1 = Off,On
00 00 0F	00 - 01	Ach Bass Cut SW	0,1 = Off,On
00 00 10	00 - 01	Ach Enhancer SW	0,1 = Off,On
00 00 11	00 - 01	Ach Expander SW	0,1 = Off,On
00 00 12	00 - 01	Ach Compressor SW	0,1 = Off,On
00 00 13	00 - 01	Ach Limiter SW	0,1 = Off,On
00 00 14	00 - 01	Bch Bass Cut SW	0,1 = Off,On
00 00 15	00 - 01	Bch Enhancer SW	0,1 = Off,On
00 00 16	00 - 01	Bch Expander SW	0,1 = Off,On
00 00 17	00 - 01	Bch Compressor SW	0,1 = Off,On
00 00 18	00 - 01	Bch Limiter SW	0,1 = Off,On
00 00 19	03 - 54	Ach Bass Cut Frequency (*1)	Thru/20.0,,,2.00kHz
00 00 1A	00 - 64	Ach Enhancer Sens	0,,,100
00 00 1B	48 - 70	Ach Enhancer Frequency (*1)	1.0k,,,10.0kHz
00 00 1C	38 - 5C	Ach Enhancer Mix Level	(0dB:80[50H]) -24,,,12dB
00 00 1D	38 - 5C	Ach Input Gain	(0dB:80[50H]) -24,,,12dB
00 00 1E	00 - 0A	Ach Input Detect Time	0,,,10ms
00 00 1F	00 - 02	Ach Input Detect Point	Ach,Bch,A+B
00 00 20	00 - 50	Ach Expander Threshold	(0dB:80[50H]) -80,,,0dB
00 00 21	00 - 0D	Ach Expander Ratio (*4)	1:1.0,,,1:INF
00 00 22	00 - 64	Ach Expander Attack	0,,,100ms
00 00 23	00 - 64	Ach Expander Release (*5)	50,,,5000ms

00 00 24	38 - 50	Ach Compressor Threshold	(0dB:80[50H]) -24,,,0dB
00 00 25	00 - 0D	Ach Compressor Ratio (*4)	1:1.0,,,1:INF
00 00 26	00 - 64	Ach Compressor Attack	0,,,100ms
00 00 27	00 - 64	Ach Compressor Release (*5)	50,,,5000ms
00 00 28	00 - 56	Ach Compressor Level	(0dB:80[50H]) -80,,,6dB
00 00 29	38 - 50	Ach Limiter Threshold	(0dB:80[50H]) -24,,,0dB
00 00 2A	00 - 64	Ach Limiter Attack	0,,,100ms
00 00 2B	00 - 64	Ach Limiter Release (*5)	50,,,5000ms
00 00 2C	00 - 56	Ach Output Level	(0dB:80[50H]) -80,,,6dB
00 00 2D	00 - 01	Ach Output Soft Clip	0,1 = Off,On
00 00 2E	03 - 54	Bch Bass Cut Frequency (*1)	Thru/20.0,,,2.00kHz
00 00 2F	00 - 64	Bch Enhancer Sens	0,,,100
00 00 30	48 - 70	Bch Enhancer Frequency (*1)	1.0k,,,10.0kHz
00 00 31	38 - 5C	Bch Enhancer Mix Level	(0dB:80[50H]) -24,,,12dB
00 00 32	38 - 5C	Bch Input Gain	(0dB:80[50H]) -24,,,12dB
00 00 33	00 - 0A	Bch Input Detect Time	0,,,10ms
00 00 34	00 - 02	Bch Input Detect Point	Ach,Bch,A+B
00 00 35	00 - 50	Bch Expander Threshold	(0dB:80[50H]) -80,,,0dB
00 00 36	00 - 0D	Bch Expander Ratio (*4)	1:1.0,,,1:INF
00 00 37	00 - 64	Bch Expander Attack	0,,,100ms
00 00 38	00 - 64	Bch Expander Release (*5)	50,,,5000ms
00 00 39	38 - 50	Bch Compressor Threshold	(0dB:80[50H]) -24,,,0dB
00 00 3A	00 - 0D	Bch Compressor Ratio (*4)	1:1.0,,,1:INF
00 00 3B	00 - 64	Bch Compressor Attack	0,,,100ms
00 00 3C	00 - 64	Bch Compressor Release (*5)	50,,,5000ms
00 00 3D	00 - 56	Bch Compressor Level	(0dB:80[50H]) -80,,,6dB
00 00 3E	38 - 50	Bch Limiter Threshold	(0dB:80[50H]) -24,,,0dB
00 00 3F	00 - 64	Bch Limiter Attack	0,,,100ms
00 00 40	00 - 64	Bch Limiter Release (*5)	50,,,5000ms
00 00 41	00 - 56	Bch Output Level	(0dB:80[50H]) -80,,,6dB
00 00 42	00 - 01	Bch Output Soft Clip	0,1 = Off,On
00 00 43	00	(Reserved)	
:		:	
00 00 7F	00		

* When Link SW = On, Bch corresponds to Ach.
(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*4) See “MIDI Data - EXP / CMP Ratio Table.”
(*5) Time (ms) = 50.0 X pow (100.0, Data / 100.0)

❍Master Effect Algorithm 0 Speaker Modeling

(See “Algorithm 35 Speaker Modeling.”)

❍Master Effect Algorithm 1 10Band Parametric Equalizer

00 00 0E	00 - 01	Bass Cut SW	0,1 = Off,On
00 00 0F	00 - 01	EQ SW	0,1 = Off,On
00 00 10	00 - 01	Expander SW	0,1 = Off,On
00 00 11	00 - 01	Compressor SW	0,1 = Off,On
00 00 12	03 - 54	Bass Cut Frequency (*1)	Thru/20.0,,,2.00kHz
00 00 13	04 - 5E	EQ Input Level (*2)	-30.0,,,15.0dB
00 00 14	22 - 5E	EQ Band1 Gain (*2)	-15.0,,,15.0dB
00 00 15	04 - 7C	EQ Band1 Frequency (*1)	20.0,,,20.0kHz
00 00 16	00 - 21	EQ Band1 Q (*3)	0.355,,,16.0
00 00 17	22 - 5E	EQ Band2 Gain (*2)	-15.0,,,15.0dB
00 00 18	04 - 7C	EQ Band2 Frequency (*1)	20.0,,,20.0kHz
00 00 19	00 - 21	EQ Band2 Q (*3)	0.355,,,16.0
00 00 1A	22 - 5E	EQ Band3 Gain (*2)	-15.0,,,15.0dB
00 00 1B	04 - 7C	EQ Band3 Frequency (*1)	20.0,,,20.0kHz
00 00 1C	00 - 21	EQ Band3 Q (*3)	0.355,,,16.0
00 00 1D	22 - 5E	EQ Band4 Gain (*2)	-15.0,,,15.0dB
00 00 1E	04 - 7C	EQ Band4 Frequency (*1)	20.0,,,20.0kHz
00 00 1F	00 - 21	EQ Band4 Q (*3)	0.355,,,16.0
00 00 20	22 - 5E	EQ Band5 Gain (*2)	-15.0,,,15.0dB
00 00 21	04 - 7C	EQ Band5 Frequency (*1)	20.0,,,20.0kHz
00 00 22	00 - 21	EQ Band5 Q (*3)	0.355,,,16.0
00 00 23	22 - 5E	EQ Band6 Gain (*2)	-15.0,,,15.0dB
00 00 24	04 - 7C	EQ Band6 Frequency (*1)	20.0,,,20.0kHz
00 00 25	00 - 21	EQ Band6 Q (*3)	0.355,,,16.0
00 00 26	22 - 5E	EQ Band7 Gain (*2)	-15.0,,,15.0dB
00 00 27	04 - 7C	EQ Band7 Frequency (*1)	20.0,,,20.0kHz
00 00 28	00 - 21	EQ Band7 Q (*3)	0.355,,,16.0
00 00 29	22 - 5E	EQ Band8 Gain (*2)	-15.0,,,15.0dB
00 00 2A	04 - 7C	EQ Band8 Frequency (*1)	20.0,,,20.0kHz
00 00 2B	00 - 21	EQ Band8 Q (*3)	0.355,,,16.0
00 00 2C	22 - 5E	EQ Band9 Gain (*2)	-15.0,,,15.0dB
00 00 2D	04 - 7C	EQ Band9 Frequency (*1)	20.0,,,20.0kHz
00 00 2E	00 - 21	EQ Band9 Q (*3)	0.355,,,16.0
00 00 2F	22 - 5E	EQ Band10 Gain (*2)	-15.0,,,15.0dB
00 00 30	04 - 7C	EQ Band10 Frequency (*1)	20.0,,,20.0kHz
00 00 31	00 - 21	EQ Band10 Q (*3)	0.355,,,16.0
00 00 32	04 - 5E	EQ Output Level (*2)	-30.0,,,15.0dB
00 00 33	00 - 50	Expander Threshold	(0dB:80[50H]) -80,,,0dB

00 00 34	00 - 0D	Expander Ratio (*4)	1:1.0,,,1:INF
00 00 35	00 - 64	Expander Attack	0,,,100ms
00 00 36	00 - 64	Expander Release (*5)	50,,,5000ms
00 00 37	38 - 50	Compressor Threshold	(0dB:80[50H]) -24,,,0dB
00 00 38	00 - 0D	Compressor Ratio (*4)	1:1.0,,,1:INF
00 00 39	00 - 64	Compressor Attack	0,,,100ms
00 00 3A	00 - 64	Compressor Release (*5)	50,,,5000ms
00 00 3B	00 - 56	Compressor Level	(0dB:80[50H]) -80,,,6dB
00 00 3C	00	(Reserved)	
:		:	
00 00 7F	00		

(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*2) See “MIDI Data - Mixer EQ Gain Table.”
(*3) See “MIDI Data - Mixer EQ Quality Table.”
(*4) See “MIDI Data - EXP / CMP Ratio Table.”
(*5) Time (ms) = 50.0 X pow (100.0, Data / 100.0)

❍Master Effect Algorithm 2 3Band Dynamics

00 00 0E	00 - 01	Expander SW	0,1 = Off,On
00 00 0F	00 - 01	Compressor SW	0,1 = Off,On
00 00 10	00 - 01	Limiter SW	0,1 = Off,On
00 00 11	38 - 5C	Input Gain	(0dB:80[50H]) -24,,,12dB
00 00 12	00 - 0A	Input Detect Time	0,,,10ms
00 00 13	04 - 44	Input Low Split Point (*1)	20.0,,,800Hz
00 00 14	50 - 78	Input High Split Point (*1)	1.6k,,,16.0kHz
00 00 15	00 - 50	Expander Low Threshold	(0dB:80[50H]) -80,,,0dB
00 00 16	00 - 50	Expander Mid Threshold	(0dB:80[50H]) -80,,,0dB
00 00 17	00 - 50	Expander High Threshold	(0dB:80[50H]) -80,,,0dB
00 00 18	00 - 0D	Expander Low Ratio (*4)	1:1.0,,,1:INF
00 00 19	00 - 0D	Expander Mid Ratio (*4)	1:1.0,,,1:INF
00 00 1A	00 - 0D	Expander High Ratio (*4)	1:1.0,,,1:INF
00 00 1B	00 - 64	Expander Low Attack	0,,,100ms
00 00 1C	00 - 64	Expander Mid Attack	0,,,100ms
00 00 1D	00 - 64	Expander High Attack	0,,,100ms
00 00 1E	00 - 64	Expander Low Release (*5)	50,,,5000ms
00 00 1F	00 - 64	Expander Mid Release (*5)	50,,,5000ms
00 00 20	00 - 64	Expander High Release (*5)	50,,,5000ms
00 00 21	38 - 50	Compressor Low Threshold	(0dB:80[50H]) -24,,,0dB
00 00 22	38 - 50	Compressor Mid Threshold	(0dB:80[50H]) -24,,,0dB
00 00 23	38 - 50	Compressor High Threshold	(0dB:80[50H]) -24,,,0dB
00 00 24	00 - 0D	Compressor Low Ratio (*4)	1:1.0,,,1:INF
00 00 25	00 - 0D	Compressor Mid Ratio (*4)	1:1.0,,,1:INF
00 00 26	00 - 0D	Compressor High Ratio (*4)	1:1.0,,,1:INF
00 00 27	00 - 64	Compressor Low Attack	0,,,100ms
00 00 28	00 - 64	Compressor Mid Attack	0,,,100ms
00 00 29	00 - 64	Compressor High Attack	0,,,100ms
00 00 2A	00 - 64	Compressor Low Release (*5)	50,,,5000ms
00 00 2B	00 - 64	Compressor Mid Release (*5)	50,,,5000ms
00 00 2C	00 - 64	Compressor High Release (*5)	50,,,5000ms
00 00 2D	00 - 56	Mixer Low Level	(0dB:80[50H]) -80,,,6dB
00 00 2E	00 - 56	Mixer Mid Level	(0dB:80[50H]) -80,,,6dB
00 00 2F	00 - 56	Mixer High Level	(0dB:80[50H]) -80,,,6dB
00 00 30	38 - 50	Limiter Threshold	(0dB:80[50H]) -24,,,0dB
00 00 31	00 - 64	Limiter Attack	0,,,100ms
00 00 32	00 - 64	Limiter Release (*5)	50,,,5000ms
00 00 33	00 - 56	Output Level	(0dB:80[50H]) -80,,,6dB
00 00 34	00 - 01	Output Soft Clip	0,1 = Off,On
00 00 35	00	(Reserved)	
:		:	
00 00 7F	00		

(*1) See “MIDI Data - Mixer EQ Freq Table.”
(*4) See “MIDI Data - EXP / CMP Ratio Table.”
(*5) Time (ms) = 50.0 X pow (100.0, Data / 100.0)

(*) The address with “#” is invalid. Data Request (RQ1) or Data Set (DT1) must be transmitted the valid size to the valid address without #.

3. MIDI Machine Control

■MIDI Machine Control Details

●STOP (MCS)

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 01H	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
01H	STOP (MCS)
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200 / C7100 stops immediately.
When “MIDI MMC Tx Switch”of VM-C7200 / C7100 is set to “On,” if the transport switch [STOP] was pressed, the VM-C7200 / C7100 transmits as the device ID 7FH.

●PLAY (MCS)

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 02H	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
02H	PLAY (MCS)
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-7200 / 7100 goes into the playback condition. The VM-C7200 / C7100 does not transmit this message.

●DEFERRED PLAY (MCS)

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 03H	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
03H	DEFERRED PLAY(MCS)
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 goes into the playback condition after the locate operation.
When "MIDI MMC Tx Switch" of VM-C7200/C7100 is set to "On," if the transport switch [PLAY] was pressed, the VM-C7200/C7100 transmits as the device ID 7FH.

●FAST FORWARD (MCS)

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 04H	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
04H	FAST FORWARD (MCS)
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 goes into the fast forward condition.
When "MIDI MMC Tx Switch" of the VM-C7200/C7100 is set to "On," if the transport switch [FF] was pressed, the VM-7200/7100 transmits as the device ID 7FH.

●REWIND(MCS)

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 05H	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
05H	REWIND (MCS)
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 goes into the rewind condition.
When "MIDI MMC Tx Switch" of the VM-C7200/C7100 is set to "On," if the transport switch [REW] was pressed, the VM-C7200/C7100 transmits as the device ID 7FH.

●RECORD STROBE

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 06H	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
06H	RECORD STROBE
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 goes into the recording condition.
When "MIDI MMC Tx Switch" of the VM-C7200/C7100 is set to "On," if the transport switch [REC] was pressed out of the recording condition, the VM-C7200/C7100 transmits as the device ID 7FH.

●RECORD EXIT

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 07H	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
07H	RECORD EXIT
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 exits from the record condition.
When "MIDI MMC Tx Switch" of the VM-C7200/C7100 is set to "On," if the transport switch [REC] was pressed while recording, the VM-C7200/C7100 transmits as the device ID 7FH.

●MMC RESET

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 0DH	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
0DH	MMC RESET
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 resets all communication channels related with MMC.
When "MIDI MMC Tx Switch" of the VM-C7200/C7100 is set to "On," if powered on the VM-C7200/C7100 transmits as the device ID 7FH.

●WRITE

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 40H, ccH, ddH, eeH,,,ffH,,,	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
40H	WRITE
ccH	Information Bytes follows the command
ddH	The name of the writable Information Field
eeH	Information Field Format
:	:
ffH	Field names and data
:	:
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 writes the data to the specified information field.
The VM-C7200/C7100 does not transmit the message.

●MASKED WRITE

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 41H, 04H, ddH, eeH, ffH, ggH	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
41H	MASKED WRITE
04H	Number of Bytes follows the command
ddH	The name of the masked type writable Information Field
eeH	Byte number to write in the Bit Map
ffH	Bit location of the bit map byte to change
ggH	New data to write to the specified bit map byte
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 writes the data to the specified bit map byte.
The VM-C7200/C7100 does not transmit the message.

●LOCATE (MCP)

Format 1 - LOCATE [I/F]

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 44H, 02H, 00H, nnH	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
44H	LOCATE(MCP)
02H	Number of Bytes
00H	"I/F" sub command
nnH	Information Field (08H, 09H, 0AH, 0BH, 0CH, 0DH, 0EH, 0FH)
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 locates the selected time location stored to the specified information field.
The VM-C7200/C7100 does not transmit the message.

Format 2 - LOCATE [TARGET]

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 44H, 06H, 01H, hrH, mnH, scH, frH, ffH	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
44H	LOCATE(MCP)
06H	Number of Bytes
01H	"TARGET" sub command
hrH, mnH, scH, frH, ffH	Standard Time with Sub Frame
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 locates the specified time location received from the command.
When "MIDI MMC Tx Switch" of the VM-C7200/C7100 is set to "On," if the efficient locate switch [LOC?] or Marker switch [PREVIOUS] or [NEXT] is pressed, the VM-C7200/C7100 transmits as the device ID 7FH.

●MOVE

Status	Data Byte	Status
F0H	7FH, Dev, 06H, 4CH, 02H, ddH, ssH	F7H

Byte	Description
F0H	Exclusive Status
7FH	Universal System Exclusive Message Realtime Header
Dev	Device ID (or 7FH)
06H	MMC Command Message
4CH	MOVE
02H	Number of Bytes
ddH	Name of the Efficient Destination Information Field (08H, 09H, 0AH, 0BH, 0CH, 0DH, 0EH, 0FH)
ssH	Name of the Efficient Source Information Field(01H)
F7H	EOX (End of System Exclusive Message)

If the device ID on the message was as same as that of the receiving device or 7FH, the VM-C7200/C7100 transfers the data on the selected source information field to the destination Information Field, if the name of both information fields is efficient.
The VM-C7200/C7100 does not transmit the message.

4. Appendices

●Decimal and Hexadecimal table

(Hexadecimal number is shown with H.)
In MIDI documentation, data values and addresses/sizes of system exclusive messages etc. are expressed as hexadecimal values for each 7 bits. The following table shows how these correspond to decimal numbers.

dec	hex	dec	hex	dec	hex	dec	hex
0	00H	32	20H	64	40H	96	60H
1	01H	33	21H	65	41H	97	61H
2	02H	34	22H	66	42H	98	62H
3	03H	35	23H	67	43H	99	63H
4	04H	36	24H	68	44H	100	64H
5	05H	37	25H	69	45H	101	65H
6	06H	38	26H	70	46H	102	66H
7	07H	39	27H	71	47H	103	67H
8	08H	40	28H	72	48H	104	68H
9	09H	41	29H	73	49H	105	69H
10	0AH	42	2AH	74	4AH	106	6AH
11	0BH	43	2BH	75	4BH	107	6BH
12	0CH	44	2CH	76	4CH	108	6CH
13	0DH	45	2DH	77	4DH	109	6DH
14	0EH	46	2EH	78	4EH	110	6EH
15	0FH	47	2FH	79	4FH	111	6FH
16	10H	48	30H	80	50H	112	70H
17	11H	49	31H	81	51H	113	71H
18	12H	50	32H	82	52H	114	72H
19	13H	51	33H	83	53H	115	73H
20	14H	52	34H	84	54H	116	74H
21	15H	53	35H	85	55H	117	75H
22	16H	54	36H	86	56H	118	76H
23	17H	55	37H	87	57H	119	77H
24	18H	56	38H	88	58H	120	78H
25	19H	57	39H	89	59H	121	79H
26	1AH	58	3AH	90	5AH	122	7AH
27	1BH	59	3BH	91	5BH	123	7BH
28	1CH	60	3CH	92	5CH	124	7CH
29	1DH	61	3DH	93	5DH	125	7DH
30	1EH	62	3EH	94	5EH	126	7EH
31	1FH	63	3FH	95	5FH	127	7FH

* Decimal values such as MIDI channel, bank select, and program change are listed as one (1) greater than the values given in the above table.
* A 7-bit byte can express data in the range of 128 steps. For data where greater precision is required, we must use two or more bytes. For example, two hexadecimal numbers aa bbH expressing two 7-bit bytes would indicate a value of aa x 128 + bb.
* In the case of values which have a +/- sign, 00H = -64, 40H = +/-0, and 7FH = +63, so that the decimal expression would be 64 less than the value given in the above chart. In the case of two types, 00 00H = -8192, 40 00H = +/-0, and 7F 7FH = +8191.
* Data marked "nibbled" is expressed in hexadecimal in 4-bit units. A value expressed as a 2-byte nibble 0a 0bH has the value of a x 16 + b.

<Ex.1> What is 5AH in decimal system?
5AH = 90 according to the above table.

<Ex.2>What in decimal system is 12034H in hexadecimal of every 7 bit?
12H = 18, 34H = 52 according to the above table. So 18 x 128 + 52 = 2356.

<Ex.3> What in decimal system is 0A 03 09 0D in nibble system?
0AH = 10, 03H = 3, 09H = 9, 0DH = 13 according to the table.
So ((10 x 16 + 3) x 16 + 9) x 16 + 13 = 41885.

<Ex. 4> What in nibble system is 1258 in decimal system?

```
    ____
16)1258
16)  78 ... 10
16)   4 ... 14
       0 ...  4
```

0 = 00H, 4 = 04H, 14 = 0EH, 10 = 0AH According to the table.
So it is 00 04 0E 0AH.

●Example of system exclusive message and Checksum calculation

On Roland system exclusive message (DT1), checksum is added at the end of transmitted data (in front of F7) to check the message is received correctly. Value of checksum is defined by address and data (or size) of the system exclusive message to be transmitted.

How to calculate checksum (Hexadecimal number is shown with H.)

Checksum is a value which lower 7 bit of the sum of address, size and checksum itself turns to be 0.
If the address of the system exclusive message to be transmitted is aa bb ccH and data or size is dd ee ffH,

aa + bb + cc + dd + ee + ff = sum
sum / 128 = quotient and odd
When odd is 0, 0 = checksum
When odd is other than 0, 128 - odd = checksum

■MIDI Machine Control (MMC) Command, Information field / Response Reference

●Command Recognized

Command	Action
01H STOP	STOP
02H PLAY	PLAY
03H DEFERRED PLAY	PLAY
04H FAST FORWARD	FF
05H REWIND	REW
06H RECORD STROBE	REC / PUNCH IN
07H RECORD EXIT	PUNCH OUT
0DH MMC RESET	RESET
40H WRITE	Write Information Fields
41H MASKED WRITE	Set Track Status Information Fields
44H 00H LOCATE I/F	LOCATE (Read locator)
44H 01H LOCATE TARGET	LOCATE (Designated Time)
4CH MOVE	Move between Information Fields

●Commands Transmitted

Command	Action
01H STOP	STOP
03H DEFERRED PLAY	PLAY
04H FAST FORWARD	FF
05H REWIND	REW
06H RECORD STROBE	REC / PUNCH IN
07H RECORD EXIT	PUNCH OUT
0DH MMC RESET	RESET
44H 01H LOCATE TARGET	LOCATE

●Valid Information Fields / Response

Information Field	Interpret	Valid Commands
01H SELECTED TIME CODE	Current Time	MOVE(FROM)
08H GP0 / LOCATE POINT	Locator 1	MOVE(FROM), MOVE(TO), WRITE
09H GP1	Locator 2	MOVE (FROM), MOVE (TO), WRITE
0AH GP2	Locator 3	MOVE (FROM), MOVE (TO), WRITE
0BH GP3	Locator 4	MOVE (FROM), MOVE (TO), WRITE
0CH GP4	Locator 5	MOVE (FROM), MOVE (TO), WRITE
0DH GP5	Locator 6	MOVE (FROM), MOVE (TO), WRITE
0EH GP6	Locator 7	MOVE (FROM), MOVE (TO), WRITE
0FH GP7	Locator 8	MOVE (FROM), MOVE (TO), WRITE

PROCESADOR de MEZCLA-V **Fecha: 25/6/1999**

Modelo VM-7200, VM 7100

Tabla de MIDI Implementado

Versión: 1.00

Function...		Transmitted		Recognized		Remarks
Basic	Default	1–16		1–16		
Channel	Changed	1–16		**********		
	Default	Mode 3		Mode 3		
Mode	Messages	X		X		
	Altered	**********		X		
Note		X		X		
Number :	True Voice	X		X		
Velocity	Note On	X		X		
	Note Off	X		X		
After	Key's	O	*1	X		
Touch	Channel's	X		X		
Pitch Bend		X		X		
	1–31	O	*2	O	*2	
	33–95	O	*2	O	*2	
Control	6, 38	O	*3	O	*3	Data Entry LSB, MSB
Change	96, 97	X		O	*3	Dat Inc, Dec
	98, 99	O	*3	O	*3	NRPN LSB, MSB
	102–119	O	*2	O	*2	
Program		X		X		
Change	: True Number	**********		X		
System Exclusive		O	*4	O	*5	
	: Quarter Frame	X		X		
System	: Song Position	X		X		
Common	: Song Select	X		X		
	: Tune Request	X		X		
System	: Clock	X		X		
Real Time	: Commands	X		X		
	: All Sound Off	X		X		
	: Reset All Controllers	X		X		
Aux	: Local On/Off	X		X		
Messages	: All Notes Off	X		X		
	: Active Sensing	X		X		
	: System Reset	X		X		
Notes		*1 The leve lmeter value is transmitted according to the VM-7200/VM-7100's level meter value. *2 MIDI Control Type = C.C. only *3 MIDI Control TYpe = NRPN only *4 MIDI MMC Tx Switch (VM-C7200/C7100) = On only (MMC) *5 MMC is transmitted to the VM-Link when a VM-Link is used for the connection. When a DIF-AT is used for the connection, MMC is transmitted to the DIF-AT.				

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO O : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO X : No

Características Técnicas

VM-7200:Procesador de Mezcla-V con 48 Canales
VM-7100:Procesador de Mezcla-V con 38 Canales

NOTE

Debido al interés en el desarrollo de los productos, las características técnicas y/o la apariencia de la unidad están sujetas a modificaciones sin previo aviso.

Canales

48	*VM-7200
38	*VM-7100

Procesamiento de Señales

Conversión AD:	24 bits, sobremuestreo x 64
Conversión DA:	24 bits, sobremuestreo x 128
Procesamiento Interno:	32 bits

Frecuencia de Muestreo

48 kHz, 44.1 kHz, 32 kHz

Respuesta de Frecuencias

48 kHz:	20 Hz – 20 kHz (-0.1 dB/+0.1 dB)
44.1 kHz:	20 Hz – 20 kHz (-0.1 dB/+0.1 dB)
32 kHz:	20 Hz – 15 kHz (-0.1 dB/+0.1 dB)

Distorsión Armónica Total (INPUT SENS:0dBu, 1 kHz a nivel de salida nominal)

0.05% o menos

Nivel de Entrada Nominal (variable)

Entrada 1 – 10, 23 – 24:	-60 – +4 dBu	
Entrada 11 – 20:	-60 – +4 dBu	*VM-7200

Impedancia de Entrada

Entrada 1 – 10, 23 – 24:	10 k ohms	
Entrada 11 – 20:	10 k ohms	*VM-7200

Nivel de Salida Nominal

Main Out:	+4 dBu	
Rec Out:	-10 dBV	
Assignable Out:	+4 dBu	
Monitor Out:	+4 dBu	*VM-7200
Flex Bus Out:	+4 dBu	*VM-7200

Impedancia de Salida

Main Out:	600 ohms	
Rec Out:	600 ohms	
Assignable Out:	600 ohms	
Monitor Out:	600 ohms	*VM-7200
Flex Bus Out:	600 ohms	*VM-7200

Impedancia de Carga Recomendada

Main Out:	1 k ohm o mayor	
Rec Out:	1 k ohm o mayor	
Assignable Out:	1 k ohm o mayor	
Monitor Out:	1 k ohm o mayor	*VM-7200
Flex Bus Out:	1 k ohm o mayor	*VM-7200

Nivel de Ruido Residual (IHF-A, Typ.)

Main Out:	-80 dBu o menos	
Rec Out:	-80 dBu o menos	
Assignable Out:	-80 dBu o menos	
Monitor Out:	-80 dBu o menos	*VM-7200
Flex Bus Out:	-80 dBu o menos	*VM-7200

Conectores y Jacks

Jacks de Entrada 1 – 10 (Tipo-XLR, balanceado, alimentación phantom)
Jacks de Entrada 1 – 10 (tipo fono 1/4, TRS balanceado)
Jacks de Entrada 11 – 20 (Tipo-XLR, balanceado, alimentación phantom) *VM-7200
Jacks de Entrada 11 – 20 (tipo fono 1/4, TRS balanceado) *VM-7200
Jacks Insert 1 – 6 (tipo fono 1/4, TRS)
Jacks Insert 11 – 16 (tipo fono 1/4, TRS) *VM-7200
Jacks Main Out L, R (Tipo-XLR, balanceado)
Jacks Main Out L, R (tipo fono 1/4, TRS balanceado)
Jacks Rec Out L, R (RCA tipo fono)
Jacks Assignable Out 1 – 8 (tipo fono 1/4, TRS balanceado)
Jacks Monitor Out L, R (tipo fono 1/4, TRS balanceado) *VM-7200
Conectores Flex Bus Out 7 – 12 (Tipo-XLR, balanceado) *VM-7200
Jacks Flex Bus Out 5 – 12 (tipo fono 1/4, TRS balanceado) *VM-7200
Conectores Digital In (AES/EBU, Coaxial)
Conectores Digital Out (AES/EBU, Coaxial)
Conectores MIDI (In, Out/Thru/Meter)
Conectores VM-LINK (In, Out) (Tipo XLR)
Conectores Word Clock (In, Out) (Tipo BNC)

- **Añadido (activado) con la instalación de la VM-24C o la VM-24E.**

Cascade Connector (DB-25 type)
Digital Multi In/Out Connector 1 – 8 (R-BUS, DB-25 type)
Digital Multi In/Out Connector 9 – 16 (R-BUS, DB-25 type)
Digital Multi In/Out Connector 17 – 24 (R-BUS, DB-25 type)

Alimentación

AC 117 V, AC 230 V or AV 240 V

Consumo

65 W *VM-7200
55 W *VM-7100

Dimensiones

482 (ancho) X 423 (hondo) X 137 (alto) mm

Peso

9.4 kg *VM-7200
8.7 kg *VM-7100

Accesorios

Cable alimentación AC
Esquemático
Manual del Usuario

Opciones

Consola de Mezcla-V	VM-C7200/VM-C7100
Placa de Ampliación de Efectos:	VS8F-2
Kit de Cascada:	VM-24C
Placa de Ampliación I/O:	VM-24E
Interface externo para adat/TASCAM:	DIF-AT
Escuadra para montura en rack:	RO-7000

(0 dBu = 0.775 Vrms)

Función de Actualización del DIF-AT

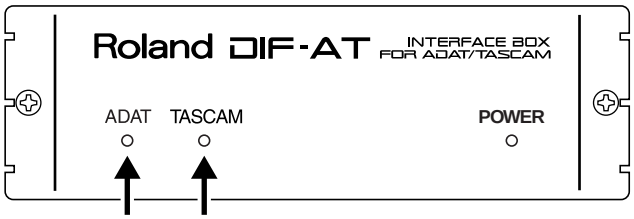
Función de Auto-actualización de DIF-AT

El DIF-AT de Roland es un interface externo que sirve para conectar la serie ADAT de Alesis o la serie DA de TASCAM a los procesadores VM-7200 / 7100.

Si conecta el DIF-AT al Procesador con el cable R-BUS (RMDB2) y enciende el procesador, este último detectará la versión del software del DIF-A, y según la versión encontrada, el Procesador actualizará el software del DIF-AT a la versión más reciente. **(función Auto-actualización)**

Durante la actualización, el indicador del ADAT y el del TASCAM parpardean de forma alternante y el indicador CTRL del Procesador también parpadea.

* *Asegúrese de no apagar el Procesador o desconectar el cable R-BUS (RMDB2).*



Parpadean de forma alternante

La actualización requiere cierto tiempo para finalizarse. Una vez completada la actualización, se iluminarán los indicadores del ADAT y del TASCAM en el DIF-AT.

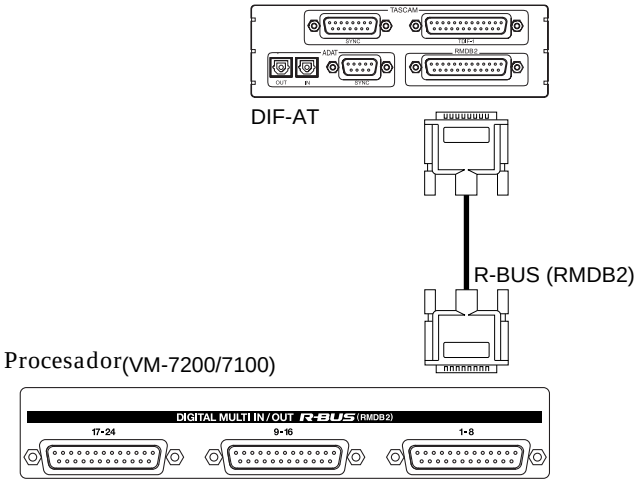
Una vez completada la actualización, apague el Procesador y vuelva a encenderlo. Ahora el DIF-AT dispone del software más reciente.

Si falla la actualización

Si se apaga el Procesador o se desconecta el cable R-BUS (RMDB2) accidentalmente durante la actualización automática del DIF-AT, el software quedará destruido y el DIF-AT no funcionará. Contacte con el servicio post-venta de Roland.
No obstante, si utiliza la consola VM-C7200 / VM-C7100, puede recuperar el software del DIF-AT mediante la operación de la Consola.

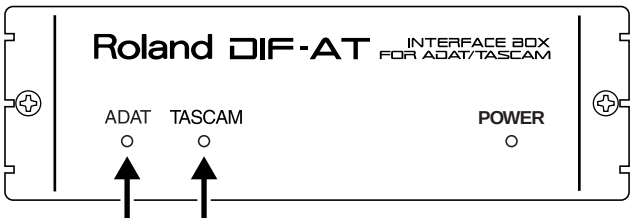
(Re-update)

1. Conecte la Consola al Procesador con el cable VM-LINK.
2. Conecte el Procesador (conector DIGITAL MULTI IN / OUT 1-8) y el DIF-AT con el cable R-BUS (RMDB2).



3. Encienda el Procesador. Espere hasta que el indicador de CTRL deje de parpadear y quede iluminado de forma constante.
4. Mientras mantiene pulsado [PROJECT] y los botones [F2] de la Consola, encienda la Consola. Si se muestra el título del Mezclador-V, deje de pulsar los botones.
5. Cuando se muestra “Press [F1] to Update” en la pantalla, pulse el botón [F1]. Se inicia la Re-update (re-actualización) del DIF-AT. Durante la actualización el indicador ADAT y TASCAM parpadean de forma alternante.

* *Asegúrese de no apagar el Procesador ni de desconectar el cable R-BUS (RMDB2).*



Parpadean de forma alternante

6. La actualización tardará algún tiempo en realizarse. Una vez completada la actualización, los indicadores ADAT y TASCAM en el DIF-AT se iluminarán. Se muestra “DIF-AT Updated. Reboot Please.”en la pantalla.
7. Una vez completada la actualización, apague el Procesador y vuelva encenderlo. Ahora funcionará el DIF-AT con la versión más reciente del software.

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